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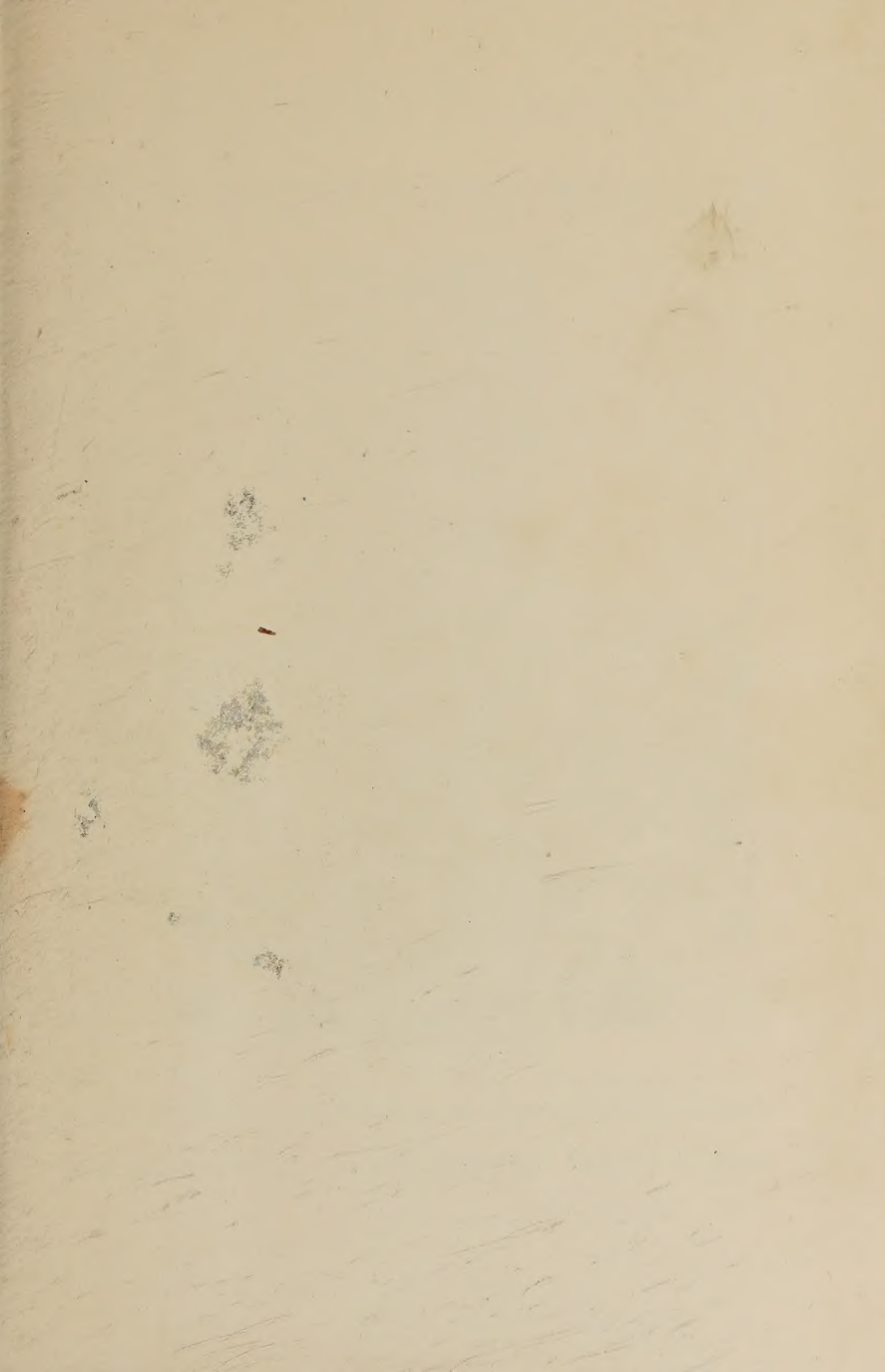
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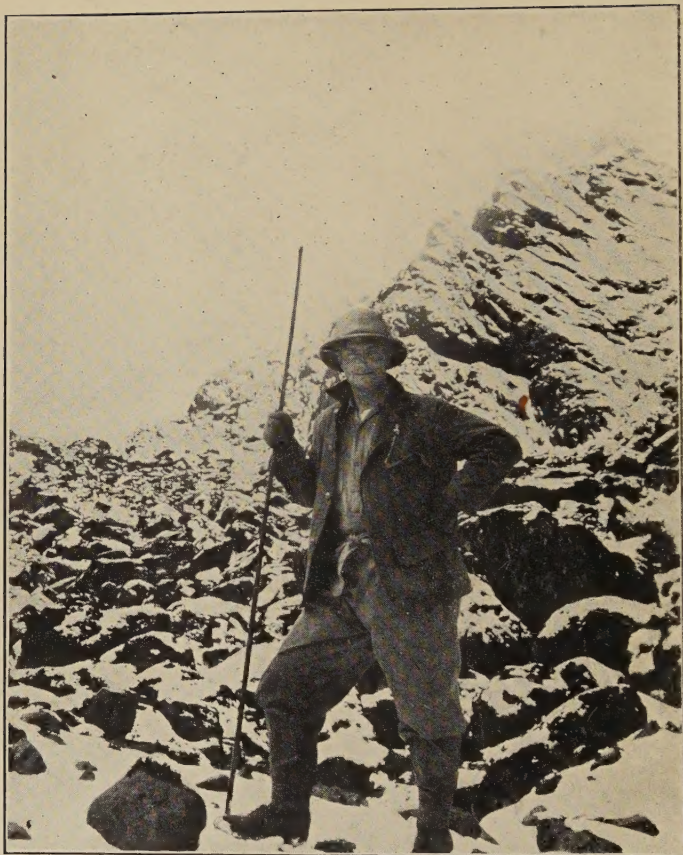
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Photographs from Wide World Photos

On Mount Baker in August, ready for sunburn or frost bite.

IN COLDEST AFRICA

BY CARVETH WELLS



101

DOUBLEDAY, DORAN & COMPANY, INC.
GARDEN CITY MCMXXIX NEW YORK

WITH A FOREWORD BY SAMUEL A. BARRETT,
DIRECTOR OF THE MILWAUKEE PUBLIC MUSEUM



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To

BURT MASSEE

FOREWORD

The great continent of Africa presents such varied conditions that almost nothing sounds too strange as an "African tale," and the truth which Mr. Wells sets forth in the pages of *In Coldest Africa* seems strangest of all.

Here the "dense jungles" become beautiful wooded plains, peopled by vast herds of "wild animals" almost as tame as domestic cattle. The roaring lion becomes a genial pet. In fact, the great veld region of East Africa takes on an aspect so different from that which is generally presented that we hardly recognize it.

We are taken to the Mountains of the Moon and find that here, where we are supposed to roast directly under the equator, we are in reality in a land of perpetual snow and ice, as truly arctic as the North Pole.

This is indeed a new Africa to which Mr. Wells is introducing us, with that inimitable wit and that abiding sense of humor which ever characterize his writings and his lectures.

As a member of the Cudahy-Massee-Milwaukee-

Museum African Expedition, Mr. Wells's notebook, pencil, and camera were constantly in operation, with the utmost accuracy, recording the real facts hour by hour.

These facts may be stated in such a manner that they appear humorous or even fanciful, but they are nevertheless facts, most of all the fact that the "wild life" of Africa is not half so wild as we have been led to believe.

It is hoped that one result of Mr. Wells's work will be to help conserve the "wild life" of Africa so that for all time to come the nature lover may find these fine animals in this, the last great game country on earth.

June 25, 1929.

S. A. BARRETT, *Director,*
Milwaukee Public Museum.

PREFACE

It is eleven years since I arrived in the United States, direct from the Malay Jungle, bringing with me tales of tree-climbing fish, singing earthworms, and monkeys that cleaned their teeth after meals!

Dr. Frederick Augustus Lucas, Director Emeritus of the American Museum of Natural History, wrote the prefaces to my books, Six Years in the Malay Jungle and The Jungleman and His Animals. He would have written the preface to this book also, but, alas, he has passed on and I have lost the friend who encouraged and helped me in my attempts to present facts of natural history in such a way that they would cause wonderment and stimulate research.

President Thwing of Western Reserve University once told me that I had the faculty of making the truth sound like a lie. I have never done this purposely—it is quite natural.

Just as the arctic is regarded by the average person as a region of ice and snow, inhabited by Eskimos and polar bears, so is Central Africa usually regarded as a terribly hot place, covered with jungle and swarming with snakes.

My only arctic experience was an expedition to Lapland in the summer, and I found a country covered with beautiful flowers but swarming with mosquitoes. Eskimos were unheard of, but instead I found myself in the glorious summer home of Santa Claus!

My only experience of Central Equatorial Africa is faithfully recorded in this book, but, as I suspected would be the case, I found that jungle was conspicuous by its absence and that the very word jungle was never used in Kenya, Tanganyika, or Uganda.

The African Jungle of Hollywood fame is purely imaginary. Lions are not jungle animals, and I would wager that if a troupe of African lions were let loose in the Malay jungle or any other jungle they would very soon starve to death.

In his book In Brightest Africa Carl Akeley started the process of debunking the Dark Continent. Daniel Streeter has continued the process in Denatured Africa, while I, in this book, hope to show that Central Equatorial Africa is not at all an impossible place for winter sports.

Any expedition to the Ruwenzori Range should enlist the assistance and coöperation of the British government and the advice of other explorers of that region.

For the government aid, I have to thank Mr. Lyman Beecher Stowe, who set the ball rolling across the Atlantic to the home of Anthony Hope and thence to the Colonial Office in London.

For the advice of other explorers, I am indebted to Dr. James P. Chapin of the American Museum of Natural History, who climbed the Ruwenzori Range from the Belgian Congo side in 1926 (vide Natural History, Vol. 27, No. 6. 1927).

✧ *Upon my arrival in Africa I received the greatest assistance from Sir Jacob Barth, Acting Governor of Kenya; Mr. E. L. Scott, Assistant Chief Secretary of Uganda; Mr. Dyson Blair, Director of Surveys, Uganda; Mr. H. B. Bain, Executive Engineer at Kampala; Mr. C. E. Sullivan, Provincial Commissioner, Toro; Mr. E. D. Tongue, District Commissioner, Kampala; Mr. A. D. Fisher, District Commissioner, Fort Portal; and Mr. R. T. Wickham, who accompanied Captain G. N. Humphreys on his expedition in 1926.*

In conclusion I wish to thank Mr. George Oliver, who was also with Captain Humphreys and who organized our safari. Without his help I doubt if we would have succeeded.

CARVETH WELLS.

EXPLORERS' CLUB,
JUNE, 1929.

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PART I
TANGANYIKA GAME TRAILS

Field Book. No 1.

Massee Expedition
to
Ruwenzori Range

Diary in front.

Color Notes at the back

Ernest Wells

Ernest

August 1928.

August 19th. Sunday

Crossed the MAHOMA River at N-25
Stopped & had lunch. Glad of
our Primus stoves & Thermos Flask.

Elevation 6660.

Temp. of water. 54° F.

After comfortable lunch we
started the two thousand feet climb
to camp NYINABITABA, through
dense forest. Then through great
ferns 8 to 10 feet high.

At 7300 we came to a large
rock covered with small violet
flowers that had every appearance
of violets except that they grew
on a small creeper. Here also
we came to the first bamboo.

We are climbing up the very
edge of a "horror back" that runs
up to camp. On both sides of
the path there is a precipice, &
sometimes the track is only a foot
wide, but thank the Lord, there
is plenty of grass on both sides
& trees as well, so that one is
not conscious of the presence of
two precipices!

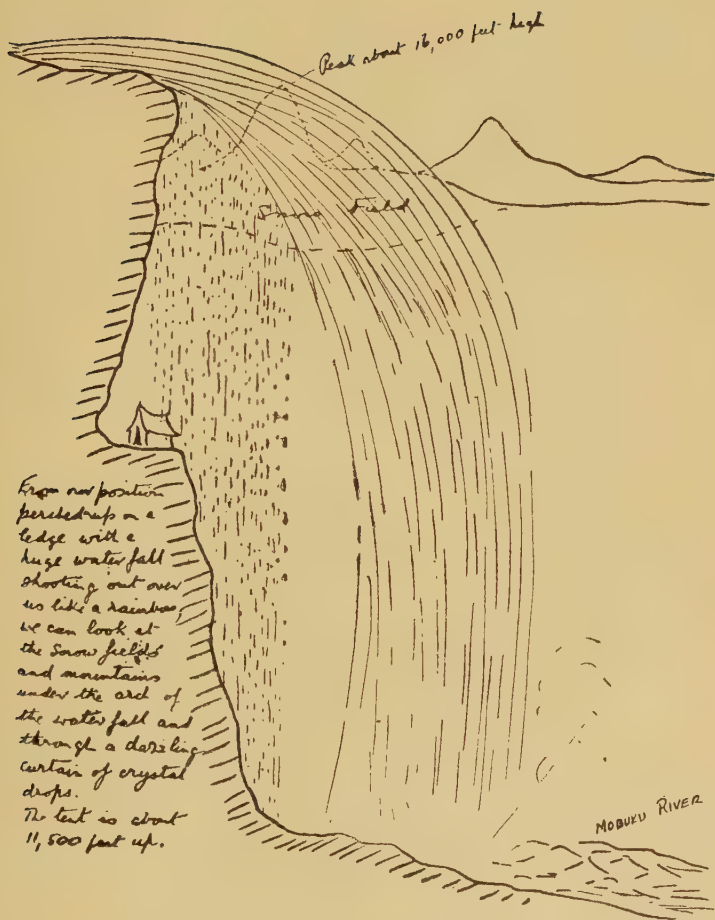
The Mbotuken River is on our
right, roaring along hundreds of
feet below us. It has evidently
cut its way into an immense
moraine, because the round glacial
boulders can be seen distinctly.



A Ruessenzii Violet.
Hairy leaves & stems
Elevation 7500 feet



Noted size.
All colors from white
to pink to carmine,
at 8500 ft.



From our position perched up on a ledge with a huge water fall shooting out over us like a rainbow we can look at the snow fields and mountains under the arch of the water fall and through a dazzling curtain of crystal drops.

The tent is about 11,500 feet up.

August 20th 1928

Billy and Buster are quite cheerful and it seems a shame that they are to be killed for food as soon as we reach the snow.

Kichuchan camp is situated under a huge overhanging precipice. There was just enough room to pitch our tent on a ledge, but we are surrounded by the swamp.

Water drips continuously from the rock a hundred feet above us, but falls clear of the tent.

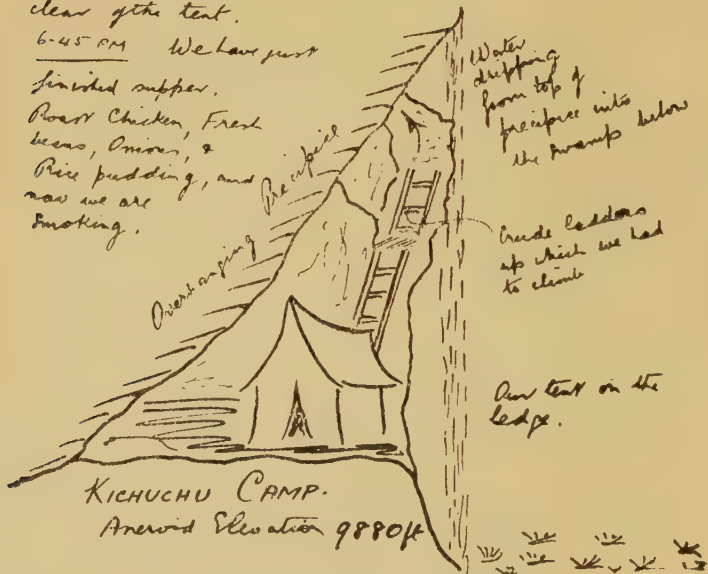
6-45 PM We have just finished supper.

Roast Chicken, Fresh beans, Onions, &

Rice pudding, and now we are smoking.



We called it "Ruscus Shamrock". It has a tiny blue blossom like a sweet pea.
Elevation 9,550 feet.



August 21, 1928

We reached the Mdrake River again at 12 o'clock, after another terrific climb and scramble over fallen logs more slippery than ice.

The river is about 40 feet wide here & the water is clear but brown in color. Temp of water. 43°F
Temp of air. 56°F .

abt 1-15 PM we reached a summit elevation 11,250 ft. Barometer 1973 in.

I am writing this at the time, sitting on a large wet sponge of moss, with a sheer drop of seven or eight hundred feet below me.

We are up in the clouds and can watch them rising up and past us. The vegetation around me is moss, grass, violets, everlasting flowers, and big yellow flowers like SMOR BOLA in Lapland but they grow on a small tree.

Also!! a hail storm!

Now we go again, stumbling, sliding & cursing into more swamp & those terrible fallen tree logs, slippery as a banana skin.

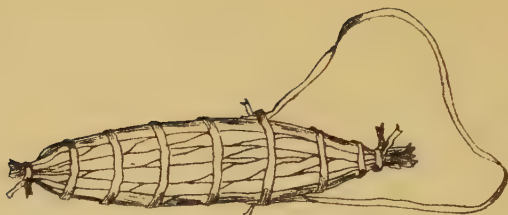
Then suddenly we came into a valley, through which the Mdrake river runs. This is the second level step on the way to.

Kaijongo. The whole valley was covered with moss, two or three feet deep and sodden with water.

Plant very short. all green. Lily with dark brown stripes. Hypericum ca 8 inches long found at 11,000 feet.



Hypericum at 11,250 feet
Rich yellow tinged with red.



Cap. 17

The container is made of banana leaves

A Bakongo Fire Bundle Each man carried
one of these It contains a month's supply of
fire fire To obtain fire the simply open one end of
the bundle, and flames come out
Dimensions 3 ft long, 4 inches in diameter

August 22nd 1928

At quarter to one, after a steep climb we reached Kaijongo
Camp Elev 12,320 & the first thing I noticed was
a moss covered wooden platform which had been made
by the Duke of the Abuzzi party in 1906, and on the
rock close by, painted in red letters a foot high

Expedition
H.R.H the 7th
6

D of A
13.7.
1906

When the Duke arrived here at Kaijongo, he at first
thought such a place would be impossible for a camp
but by cutting down groundsel trees and rolling away
rocks and building platforms, they managed to
establish a camp.

August 24th 1928

It froze again last night, but this morning is sunny and we struck our tents and moved camp by 8-15 AM.

At 8-45 we reached another great overhanging cliff with an excellent dry ledge underneath far more suitable for a camp than Karjorgok.

Growing all along this ledge and others like it, were pretty white flowers, something like stock.



This white flower grows on dry rocky ledges at an elevation of 12,500 ft. Natural Size. I believe it is called White Anemone.

It is now ten minutes to twelve and we have arrived at Freshfield Col Camp after the most exhausting climb I ever had in my life.

The elevation is 13,930. There is about six inches of snow on the ground and under that, moss and under that, several feet of thick black mud.

This is misery indescribable! The only shelter is a huge boulder with everlasting flowers growing on the top, and a large Groundsel tree in front. Our tent was pitched on the snow and mud, and immediately the floor became deep slush and icy cold.

The porters suffered severely and we had to cook hot drinks for them on our two Primus Stoves.



Primus Stove is filled with Kerosene Oil then pumped full of air. The burner is then heated with Methyl alcohol fuel and the Kerosene vaporizes and burns with a blue flame.

waukee Public Museum, to accompany his expedition to Central Africa as official observer and lecturer.

The assurance of a passage to the Dark Continent, however, was not in itself a sufficient attraction. What I had to have was prestige. I am a lecturer, and to be merely a member of a scientific expedition carries no weight in lecture circles. One must be a "leader" to command the attention of newspapers and lecture managers. Consequently, while accepting the invitation of the Milwaukee Museum, I retained the right to organize an expedition of my own.

Like the apostles of old, explorers have no money; and in this respect, at least, I was no different from other explorers.

I had to find a patron. Peary had the Arctic Club. Amundsen had Ellsworth. Byrd has the *New York Times*, and I have Burt Massee, who is himself a Skeeter, a Fellow of the Royal Geographical Society, and member of the Explorers' Club. It was therefore appropriate that my expedition should be officially known as the Massee Expedition to the Mountains of the Moon under the auspices of the Geographical Society of Chicago.

The object of the Milwaukee expedition was to collect animals, both dead and alive, for the Milwaukee Museum. This expedition was quite important. It carried over three tons of baggage besides three motor trucks and three touring cars. Besides Dr. Barrett, its personnel included a taxidermist named Perkins, an ornithologist and skilled photographer named Gromme (pronounced Grummy), two wealthy amateur hunters named Cudahy and Goodrich respectively, and a professional hunter named Pat Ayre.

The object of my expedition was to dispel the popular idea that Central Equatorial Africa is a steaming jungle and to show that, on the contrary, it enjoys a delightful climate and is a wonderful place for winter sports, especially in the middle of August.

The Ruwenzori Range, known to the ancients, such as Aristotle and Ptolemy, as the Mountains of the Moon and the source of the Nile, consists of a group of snow-capped mountains on the equator, rising to a height of about seventeen thousand feet, with their western slopes in the Belgian Congo and their eastern in Uganda.

This great range of mountains remained practically in the realms of legend until 1906, when the

principal peaks were climbed and named by the great Italian explorer, H. R. H. the Duke of the Abruzzi.

Livingstone had passed near them many times, but never saw them because of the almost perpetual mist which envelops them. Stanley thought he caught a glimpse of snow-capped peaks on the equator in 1888, but there followed such discussion as to the possibility of such an impossibility that the mountains were left in the category of fiction until the Duke placed them definitely on the map.

Mount Kilimanjaro had been discovered earlier, but even as late as 1850 a well-known geographer named Cooley describes the accounts of the discovery as "a most delightful mental recognition not supported by the evidence of the senses. It is easier to believe in the misrepresentations of man than in such an unheard-of eccentricity on the part of nature, as a snowstorm in the middle of Africa with the sun standing vertically overhead."

As I contemplated entering the Belgian Congo I applied at the consulate in New York for a visa. I found that to keep that country unspotted from the world I had to have two certificates, one that I was in good health, the other that I was a man of



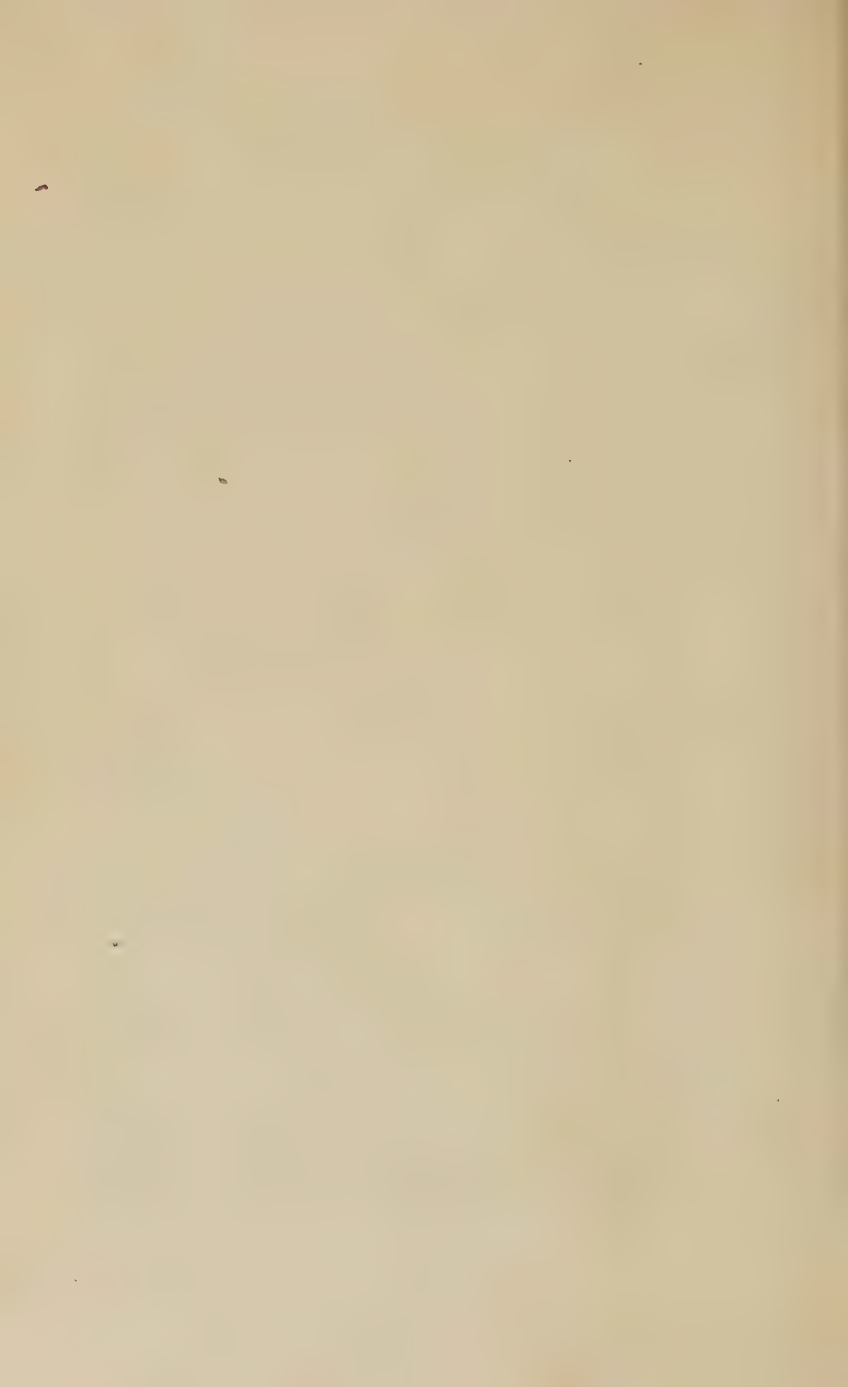
An exhibit of the Milwaukee Public Museum

As soon as an animal is shot an awning is erected over the carcass to protect it from the sun.



An exhibit of the Milwaukee Public Museum

Preparing skins for shipment to America.



unimpeachable moral character and had not had a relapse for the past five years. I managed to get both certificates and sailed from New York on the *Olympic* on June 9, 1928.

By a piece of good fortune I discovered that an old friend of mine, Dr. George W. Crile, of Cleveland, was among the passengers. Besides the fact that he is one of the most eminent surgeons in the world, Dr. Crile is also a big-game hunter and had hunted in the part of Africa to which we were going. He has made a study of the anatomy of lions, and of lion psychology; no lion stands a chance when it meets him.

Before he went to Africa Dr. Crile had heard many tales of lions charging and killing people after they had been shot through the heart. These tales seemed so absurd that Dr. Crile investigated the problem personally, with remarkable results.

His first experiments were with antelopes. He found that an antelope can run as far as a hundred yards, not only after being shot through the heart, but after its heart has been completely severed from the arteries. In other words, an antelope has enough nervous energy stored up to keep it running after the circulation of its blood has stopped.

Dr. Crile found that a lion can run from fifty to a hundred yards and kill a man after it has been shot through the heart and its blood circulation stopped. This is probably the reason for many of the fatal accidents that have occurred in hunting lions, for it shows that if a lion is charging directly at the hunter, and is less than a hundred yards from him, the heart shot, although successfully placed, is no guarantee that the lion will not reach and kill the man.

When he had proved this Dr. Crile proceeded to determine a more scientific method of stopping a lion. He decided that the only safe shot is a nerve shot; that is, a shot that will instantly paralyze the animal. The location of such a spot in a lion's body he determined by dissection. It is situated between the spine and the shoulder. A well-placed shoulder shot, just beneath the spine, will stop a lion instantly.

To prove the truth of his theory Dr. Crile and his party tracked down a lioness and two cubs. Without warning Dr. Crile found himself within eighteen feet of the lioness, which had concealed itself in a bush.

The situation was dangerous, not only because

the two cubs were present, but the other members of the hunting party, although well armed, were situated so that if they fired at the animal they stood in imminent danger of shooting one of themselves.

The men froze in their tracks and watched Dr. Crile. He knew that if he shot the animal's heart clean out of its body it would still have plenty of time to kill him before dying; he had to prevent its moving after being shot.

First of all, he caught the animal's eye and stared at it intently as he went down on one knee and aimed carefully for the paralyzing shoulder shot. He fired and nothing happened. The lioness remained facing him and immovable. Thinking that he must have missed, Dr. Crile prepared to fire the other barrel of his rifle. A signal from one of the other men stopped him. The lioness was stone dead and had died without making a movement!

A study of lion psychology is invaluable to a hunter. For as soon as a hunter sees a lion and the lion sees him, both have to make up their minds as to their course of action, and the hunter should be able to guess what the lion is going to do.

The hunter must not shoot until he is satisfied

that the lion has made up its mind not to attack. This takes nerve, but it must be remembered that if a lion decides to attack a man and is running directly toward him it may be impossible to secure the necessary nerve shot. The hunter must make the lion swerve to one side so as to expose himself to the nerve shot.

To do this he must stand his ground and stare the lion in the eyes. Lions are not accustomed to their prey standing ground, and when the lion finds that the hunter remains stationary it will swerve and thus expose its shoulder for the nerve shot. Even if the shot miscarries and the bullet passes through the lion's heart instead, the hunter is safe, for the animal will not turn, but will continue running in the same direction until it falls dead.

Lions have evolved upon entirely different lines from their usual prey, i. e., antelope and zebra. No lion can possibly chase and catch an antelope. Its muscles have been developed for a sudden rush and spring; an ordinary lion becomes exhausted after running about a hundred yards.

The bones of a lion are small in comparison with the size of the limbs, but its muscles are phenomenal.

The ribs of a lion are so soft that they can be cut through with a knife.

The heart of a lion is situated in an unusual position, being almost in the middle of its long body, and the heart is relatively small; so are the lungs, because the lion is not adapted for long running.

The brain of a lion is also comparatively small, and the top of its head is so flat that to shoot a lion through the brain when the animal is facing you is a difficult feat.

As a rule, the larger the brain and the more compact, the quicker does an animal die from brain shot. But consider the case of the boa constrictor. Although a small part of its brain is located in its head, the rest is distributed throughout the length of its spine, which explains why it takes a snake so long to die. If a boa has caught a man and is crushing him, it will not help to cut off the snake's head. The snake will continue to crush, with or without it.

It will be a blessing when someone discovers a good nerve shot for a snake.

Dr. Crile told me that he had successfully applied "creasing" in Africa. This is the way American cowboys in the old days used to catch wild horses

without severely injuring them. It consists of shooting the horse or other animal through the fleshy part of the back or mane, not touching the spine.

The shock of the bullet, passing so close to the spinal column, causes temporary paralysis, and the animal falls, apparently dead, but in a few seconds it suddenly gets up and runs away, none the worse for its little nap.

Dr. Crile gave me some advice concerning tsetse flies. He said that the idea that sleeping sickness is practically confined to certain areas is wrong, because there have been several cases of white men contracting the disease in localities supposed to be entirely free from the disease. He accounted for this by the natural migration of wild animals that were infected.

He strongly advised me to make inquiries as to the location of the hospitals and other medical stations in the locality of Ruwenzori, so that if I contracted the disease I could at once take the new treatment, which is successful if it is administered soon enough. He also advised me to go to the British Museum and study the tsetse flies so I could identify one if I saw it.

While we were still on shipboard I had a delight-

ful conversation with an old resident of Nairobi, whose most exciting experience in big-game hunting was an encounter with a pig. He needed a new handle for his umbrella. So he went out to get the ivory tusks of a wild boar. He aimed at the boar, but his rifle jammed and he had to fling it away and run for his life. The boar chased him for a quarter of a mile and then, much to the relief of the hunter, turned back in disgust.

He told me that the skating on the equator was excellent at this time of the year.

He also told me that one of the best places to get hippos was on the Jinja golf course, as it saved a lot of laborious safari. Another interesting piece of information that I secured from him was that when crocodiles get a bit old and decrepit they become quite tame and take their meals regularly from well-disposed natives who feed them fish three times a day.

A friend of his saw an interesting sight recently, when a mother elephant took her two-day-old calf down to a mud hole, where she carefully prepared a nice soft mud bath and deliberately pushed her baby into the mud out of sight and then pulled it out again.

One of his friends is a missionary engaged in translating the Bible into various native languages. In the course of his work this man has traveled on a push bike across Africa from coast to coast—not once but many times!

He advised me not to pay my natives too much, and said that \$1.50 a month was excellent wages. The trouble with some Americans is that they sometimes pay their porters five dollars a month, with the result that the porter runs away at the end of the month, buys six wives, and retires.

Recently one of the chiefs was shown a photograph of George the Fifth and his Queen. He was amazed to learn that the King had only one wife and exclaimed: "What does he do with all his money?"

The gentleman said that there were plenty of poisonous snakes and one of them spits poison several feet, aiming at one's eyes.

Buffalo are numerous and dangerous. Recently a man hunted a buffalo from horseback and was charged by the animal. The buffalo drove one of its horns into the horse's chest and it came out of the horse's back, through the saddle, and impaled the

rider. Apparently lions think nothing of taking people out of their berths in trains when the train happens to stop for water, or for whatever trains stop in lion country. And there are plenty of cheerful rhinos with horns over four feet long. The graveyards in Africa are full of tombstones with inscriptions such as: "Here lies John Doe, mauled by a leopard," or "Here lies Jacob Jones, trampled on by an elephant," or, "Here lies Joseph Smith, partly devoured by a lion," or "Here lies Jack Johnson, torn to pieces by a gorilla."

He told me that scorpions were quite plentiful in Kenya, as well as tarantulas and enormous cockroaches.

During the war a camp of three thousand soldiers was completely captured and the soldiers put to flight by big black scorpions about six inches long. The camp was pitched on very dry land upon which rain had not fallen for months. Suddenly, in the middle of the night, there was a heavy shower. Almost immediately the ground belched forth swarms of scorpions. There were about six to every soldier! When daylight came the men set to work and dug up the ground and found in each scorpion's

den about ten inhabitants. Thousands of them were caught and placed in Standard Oil cans and destroyed.

One of the regular sports in Kenya is fights between scorpions and tarantulas, or between scorpions and cockroaches.

A scorpion and a tarantula are pretty well matched, but in the case of a scorpion and cockroach fight the cockroach usually wins by rushing in between the scorpion's pincers and biting the scorpion's head. You can hear the scorpion's head crack.

A pleasant prospect I had before me!

II

WE ARRIVED in England in a blaze of glory, which made us feel important and delighted. News of our expeditions had gone ahead of us, and long before we left the ship newspaper men swarmed up on deck and photographed and interviewed us.

Our days in London were spent dashing about in taxis and pouring money out like water on our outfit. We disorganized every shop we entered. We bought things by the dozen and there were four of us to serve.

In the Army and Navy Stores Dr. Barrett spent a great deal of money, and I spent only a moderate amount. However, the next day when I went to pay my bill the clerk who served me said: "That gentleman who was with you yesterday spent a lot of money, sir." "He certainly did," I replied. "Well, sir," answered the clerk, "I'll take a pound off your bill!"

And he took the pound off *my* bill!

One of the first things we did was to present our-

selves at nine o'clock one morning at the head office of the Union Castle Steamship Line to buy our tickets for Africa. It took us half an hour to fill in the necessary questionnaires. On one of them I saw a notice that each person entering British East Africa might be called upon to make a cash deposit with the government of about \$150, to be returned when the visitor left the country. This is to make sure that in the event of anyone being deported he shall leave the country at his own expense and not at the government's! I wonder America has not had such a rule for the last fifty years.

After we had finished this my companions went off to the Board of Trade to get a permit to carry the ammunition they already carried, and I spent two hours in secondhand bookstores.

These are the books I bought:

The Land of the Pigmies, by Captain Guy Burrows. 1898.

First Footsteps in East Africa. Memorial edition in 2 vols., by Sir Richard Burton. 1894.

British Central Africa, by Sir H. H. Johnston. 1897.

Across East African Glaciers, by Dr. Hans Meyer. 1891.

The East African Protectorate, by Sir Charles Elliot. 1905.

Tramps Round the Mountains of the Moon, by T. Broadwood Johnson. 1908.

Denatured Africa, by Daniel Streeter.

In Brightest Africa, by Carl Akeley.

The book I wanted most, the Duke of Abruzzi's, in which he describes his trip to the Mountains of the Moon, I could not find here or anywhere else in London.

The days were hectic and I do not think I got to bed once before one or two o'clock in the morning, but we managed to get everything, or nearly everything, done before we sailed from London on the *Llandaff Castle* on June 21st. I think I can best describe the trip to Mombasa by selecting notes from my diary.

Thursday, June 21st, 1928.

In the smoking room to-night we made friends with a police officer from Zanzibar. Zanzibar is famous for its railway, which is eight miles long and goes to a place called Boobooboo. It is very narrow gauge and has eight engines; one for every mile.

He told us that there were worse places than

Zanzibar—but very few. It is often so windy in the town that passengers landing there are blown up the beach right into the Africa Hotel, which serves whisky with lizards in it. No charge for the lizards. He also told us we certainly ought to visit Zanzibar; that we should be very sorry if we came to East Africa and failed to visit it; but if we visited it we should be sorry, so that we should be sorry no matter whether we visited it or not.

Zanzibar is the world's market for cloves and smells of spices, except when it smells of copra and dried shark, which is one of the staple articles of native diet.

Recently there was a smallpox scare in Zanzibar, and the doctor was commissioned to do all the vaccinating in the royal palaces. Apparently, the present sultan is limited to one wife, although as a Mohammedan he is entitled to four, as well as to other companions in his solitude; but he is unfortunate in having married a woman who will not permit him to have any more wives. When the doctor arrived at the palace he found that the sultana was quite willing to have everyone vaccinated including the sultan; but she resolutely declined to be vaccinated herself.

Zanzibar is an island, and nominally independent, although the sultan is actually under English influence. He also is nominally the sultan over a strip of African coast about ten miles wide that includes Mombasa.

Zanzibar is a wonderful place for deep-sea fishing. You can catch all kinds of things. Only recently a party of English fishermen, having dined not wisely but too well, embarked upon a fishing expedition. While they were trolling they suddenly saw their line going far aloft. None of them wished to draw the attention of the others to this remarkable phenomenon for fear he would be accused of seeing things; however, it was soon quite clear that the line was not only away up in the sky but that it had caught something which proved to be a very fine eagle.

Friday, June 22d, 1928.

We are at sea and expect to sight Ushant tonight. The weather is fine and there is a heavy swell.

Last night we did not dress for dinner, but tonight we did, and shall probably continue to do so until our supply of white shirts and collars give out.

The ship's laundry does not handle any starched things.

We are at the captain's table.

Saturday, June 23d, 1928.

We are in the Bay of Biscay. I spent the morning reading *The First Ascent of Kilimanjaro*, by Hans Meyer. Mountain climbing is evidently no easier on the equator than it is anywhere else.

Sunday, June 24th, 1928.

It is Midsummer's Day and we are sailing along the coast of Portugal. The sea is calm and the weather gets warmer and warmer daily. At 10:30 we attended church. The captain read the service.

Monday Morning, 7:30 A. M., June 25th.

We are approaching Gibraltar. The sea is calm, and there is a faint heat haze hanging over the land. The shore line looks sandy, the hills rocky and barren. Thirteen miles away on our right is the coast of Africa. Close to the ship between us and Africa is a large school of porpoises swimming through a shoal of fish. There are hundreds of sea gulls following the porpoises and also feeding on fish.

11:30.

We are now entering the Mediterranean; the sky is a clear blue, and the sea is like glass.

Tuesday, June 26th.

We are headed for Marseilles and expect to arrive there about noon to-morrow.

I have been talking to the officers about sharks. One of them said he saw a diving boy in Madeira caught by a shark as he was scrambling into his boat. The shark took off both his legs.

All the officers on this boat ridicule the idea that sharks are comparatively harmless, and say that they are most dangerous.

Wednesday, June 27th.

This morning we were awakened by the waves dashing over the deck. It is very rough and the boat has a heavy list. The wind is howling and whisking spray from the surface of the sea and blowing it aboard. The sky is clear, but the weather is typical of the Gulf of Lyons.

The northwesterly gale that is blowing is commonly called the mistral.

We are due at Marseilles about two o'clock.

3:45.

We are about to tie up. On account of the bright sun and the spray from the waves and the mistral blowing the spray in a fine cloud over the boat, we entered Marseilles accompanied by a lovely rainbow, like a bridge over the boat.

8:45 P. M.

The mistral is still blowing; they say that it lasts usually for three days. We are not looking forward to our trip to Genoa, which is our next port of call.

Thursday, June 28th, 9 A. M.

We are gliding into the harbor of Genoa. I am thinking of Marco Polo, who wrote his travels in a dungeon here. We are anchoring close to a steamer which has the longest name of any steamer I ever saw. She is called ANSLADOSANGIORGIOTERZO!

Friday, June 29th.

This year in England there have been an unusual number of Painted Lady butterflies (*Pyrameis* or *Vanessa cardui*). These particular butterflies mainly originate in North Africa, cross the Mediterranean without difficulty, and sometimes travel as far as Iceland. They usually fly against the wind, rather than with it. In the spring and early summer there

are prevalent northerly winds over southern Europe, which accounts for the general trend of the butterfly migration in a northerly direction.

To-day in the middle of the Mediterranean, when the mistral was blowing a gale in a west-north-westerly direction, we saw quantities of these butterflies making their way against it.

Saturday, June 30th, 9 P. M.

We are leaving Genoa by moonlight. The sea is smooth, and the lights are reflected beautifully; not only the lights of the land, but also the lights of the vessel. We must look like a huge illuminated houseboat.

Quite a number of new passengers have come aboard. Most of them are returning to Kenya. Two will sit with us at the captain's table. One is a Colonel Tucker, and the other is a Mr. Evans. Both have been in British East Africa for many years. They are in business there together.

Sunday, July 1st.

At luncheon to-day I heard some remarkable stories concerning the capacity for food of an African Negro! As this is an important matter for me, since I shall have the feeding of forty or more

natives at least, I was somewhat perturbed to learn that four Negroes will eat a whole zebra in an afternoon, and that they often stipulate that the white hunter shall provide them with food at that rate. I was assured that it was not at all unusual for four Negroes to consume a zebra in four hours, and that by the end of that time they would begin to fight one another for the entrails!

Monday, July 2d.

At four-thirty this morning my steward wakened me and said: "Stromboli is about 'arf a mile away!"

Day was breaking, and the boat was between the sun and the volcano.

I stayed on deck for an hour watching the smoke and occasional flames which were emitted from the crater.

Stromboli is an unusual volcano, because the crater is so inclined that half of it must be under the sea. The cone of ashes rises out of the sea and has built itself up to the summit of the volcano. In fact, many people mistake the side of the cone of ashes for the side of the volcano itself. In the case of Vesuvius, one can walk around the rim of

the crater and look down at the cone of ashes. If one were to try to walk around the rim of Stromboli's crater he would make half the journey under the sea.

The volcano itself is 3,022 feet high and was said by the ancients to be the abode of Æolus, the god of the winds. The Crusaders believed it to be the entrance of Purgatory, and said that they could hear the voices of the damned imploring the intercession of the monks of Clugny. It was in consequence of this that in about A. D. 1000 Odilo of Clugny ordered the observance of All Souls' Day.

There is a small town at the base of Stromboli.

This evening in the smoking room we heard a pleasant and encouraging story about an elephant hunter. It appears that the hunter and his son went out together to shoot an elephant. The father shot first but failed to stop the animal. The elephant charged, and the son ran in front of the animal, but it knocked him away with its trunk and seized the father, threw him up in the air and caught him on his tusks; then he trampled upon him and tore him to pieces.

When the elephant had finished the son managed to kill it.

He then gathered up the remains of his father and took him back to Nairobi in an ordinary sack!

July 3d.

This evening I gave a forty-minute talk on Malay to aid the Sailors' Orphanages. I had not planned to do any lecturing and had purposely left in America all my apparatus except my tongue.

July 4th.

In honor of the Fourth the ship's dining room is specially decorated with a very large American flag and a British red ensign. We expect to reach Port Said to-morrow morning.

Thursday, July 5th, 5:30 A. M.

We are approaching the entrance of the Suez Canal. The anchor has been dropped, and a large hawser has been lowered to a small boat which is rowing with it toward an enormous red buoy.

We are surrounded by a regular fleet of small boats fishing all around us. Each boat is manned by two men, one rowing and the other fishing with a large rectangular net which he lowers about every three or four minutes and then hauls up a splendid catch. He is fishing for coal.

They do the same thing in America. Whole fleets of steam dredges fish for coal in the Monongahela River. I have often watched them.

2:30 P. M.

We had breakfast at seven-thirty and then went ashore in small boats.

I wore a thin palm beach suit and a khaki sun helmet. All the other passengers were dressed in their thinnest clothing. Several of the ladies wore no stockings! I wonder what the Arabs thought of them!

Just as we left the ship the wind changed and we were smothered with coal dust, which, mixed with the perspiration already pouring off our faces, left lovely black streaks.

Wherever we went we were besieged by hawkers. We finally took refuge in an Orthodox Greek church, which we found extremely interesting. It was full of the kind of pictures that are made of sheets of silver or gold with a space left for the face, which is painted on canvas. Evidently, these were shrines to which offerings were made. All the offerings we saw were in thanksgiving for some disease, mental or physical, which had been cured.

There were rows of little silver or gold replicas of human legs, male or female, from the foot to the thigh. Similarly there were little metal hands or hearts or heads or pairs of eyes from people who had suffered from rheumatism in their legs or hands from aching heads or broken hearts or trachoma.

Trachoma is widely prevalent in Port Said, and there is a special hospital for its treatment.

We next visited the Coptic church. It was strange to see a Christian church full of people wearing fezzes and looking exactly like Mohammedans.

Most of the women on the streets were veiled, and most of the men wore either turbans or fezzes, but our guide informed us that there is already agitation throughout Egypt to follow the lead of Turkey and abolish the fez and disestablish the Church.

3 P. M.

We are in the canal proper. Steamers passing through the Suez Canal have a pilot all the way.

Talk about pyramids, we are passing hundreds of enormous ones, perfectly made and stretching as far as I can see. Pyramids of salt!

Our speed is about eight miles an hour. Professor

Balfour, F. R. S., of Exeter College, Oxford, is standing beside me. He tells me that there are plenty of flamingoes in this locality. We have passed three on the Arabian side of the canal. Mr. Harrington, who is the assistant editor of the *Johannesburg Star*, says that he has seen the sky pink with them in Zululand.

3:45.

I am looking back across the desert at the salt pyramids. They have been transformed into great white cubes and are floating in the sky.

The Arabian desert is white with salt and looks like a prairie scene in midwinter.

On both sides of the canal is a mirage consisting of a lovely lake, dotted with islands and fringed on the far side by palm trees. There was no fresh water for miles.

Have just seen three black and white kingfishers on a post beside the canal.

After Midnight.

The moon came up shortly after 8:30 and we seemed to be headed straight toward it. In a little while, on account of a curve in the canal, it stationed itself on our left and remained there until

midnight, by which time it had risen high in the heavens and was very brilliant, dimming all the stars except the planets.

Slung over the bow of the steamer was an immense searchlight, worked by a portable dynamo on the deck. An engineer sat astride the searchlight, whose beams stretched in front of us like a huge silver fan.

It is quite beyond my power to give an idea of the beauty, the romance, the utter loveliness of this passage of the canal, by the light of the summer moon. It made me think of Antony and Cleopatra and their nights on the Nile. Several times we met other liners whose searchlights flooded us momentarily. They glided past us without the slightest noise. Once I saw a large bird fly up from the shore of the canal into the glare of our searchlight.

We heard no jackals, although there are many in this neighborhood.

July 6th, 6:20 P. M.

We are now passing the end of the Suez Canal. Two lions sculptured in white stone stand at the entrance, ready to spring on anyone daring to enter the canal. The blue of the Mediterranean is gone,

and in its place is a pale green sea, with streaks of dark blue.

12:30 Midday.

We are going down the coast of the Sinai Peninsula.

Professor Balfour informs me that the Red Sea is actually red on certain occasions, and that he himself has seen it, when absolutely calm, with enormous areas distinctly brick red. The color is caused by a microscopic organism floating in the water. This organism is neither plant nor animal, but a kind of cross between the two.

July 7th, 8:15 A. M.

The Red Sea is blue to-day. We are due in Port Sudan to-morrow.

Sunday, July 8th, 9:30 A. M.

Port Sudan is about a mile away. I can see numerous black cranes at the end of what appears to be a jetty. Two tall black water tanks look very much like America. There is a tall smokestack belching black smoke. The houses are small and flat. Lots of white roofs. Dozens of flying fish are skimming about two feet above the water. Every

now and then they let their tails drag along the surface and leave a little trail that looks like oil. I have never seen so many flying fish at one time. Some of them fly at least fifty yards before splashing into the water.

Behind the town I can count at least six ranges of mountains, but at present I see no vegetation of any kind. The engines have stopped.

Port Sudan is fitted with the latest contrivances for loading and unloading ships, but from the sea the town is not beautiful. Oil tanks, smokestacks, water tanks, and sheds.

The water close to the shore, however, is only comparable with Bermuda; most marvelous greens and blues, with patches of violet. Coral is used for building purposes here just as it is in Bermuda, but this African coral is gray and not nearly so beautiful as that in Bermuda. From a distance it looks very much like any rough gray building stone, but close at hand its secrets are revealed. All kinds of corals and marine animals are to be seen in fossil form, so that the wall of any old building is a fascinating storehouse of scientific information which seems crying out for William Beebe to come and write its romantic story.

III

AT THE suggestion of Will Evans and Colonel Tucker we had a party of ten and engaged a private car on the train to take us from Port Sudan to Suakin, a famous and characteristic Arab town about thirty miles inland. It was the scene of much fighting during the time of Gordon and Kitchener. We were told that there were no white people at all at Suakin.

It seems incredible that with this wonderful chance to see the real Arab in his home people could think of golf and tennis. But there was a large notice on the board, announcing facilities for these games on shore, and most of the passengers were wild with joy over the prospect.

The Port Sudan golf course is marvelous.

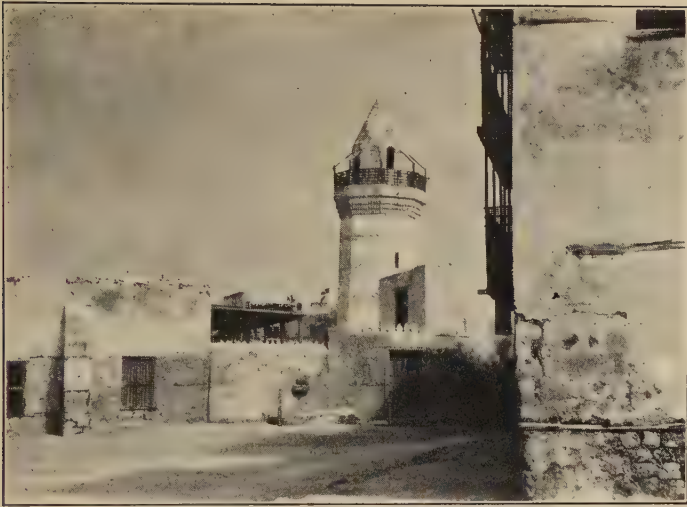
Its greens are in perfect condition, with little red flags fluttering in the sandstorms. The bunkers are of the most intricate and difficult type, warranted to defy the efforts of Bobby Jones or anyone else. There is not and never has been and probably

It was 11:15 A. M. when we steamed out of the Port Sudan station on our way toward the violet haze that covered the mountains. The grade was very steep and the engines seemed only just able to manage it.

Our conductor was an old man, dressed in khaki and wearing a red fez. He had never had so many white passengers at one time before.

We paid him one pound one shilling and ninepence for the return fare to Suakin, and this included luncheon and tea, but not beer. He refused to accept any English silver except that which had King George's head upon it. There was nothing doing in King Edwards, and Victoria was worse than spurious. The reason was that in Sudan Egyptian money is the usual money in circulation. However, by a special act, English shillings and two-shilling pieces were made legal tender provided they bore the head of the reigning sovereign. At first I wondered how a Fuzzy-Wuzzy could tell the difference between King George and King Edward. It is because the heads point in opposite directions.

Only coins with a man's head pointing to the right are acceptable to a Sudanese. Edward looks to the left, and although Victoria looks in the same



An exhibit of the Milwaukee Public Museum

In Suakin—an ancient and decaying Arab town.



An exhibit of the Milwaukee Public Museum

Waiting for the train at Suakin.

direction as her grandson she is, of course, a woman.

A few minutes after we started I made a discovery. We were going through an iron bridge which must have been about six hundred feet long. I shall never forget crossing that bridge. It was just as if we were going through a red-hot tube. The air positively burned my eyes. I shut the window and found that this made the carriage much cooler.

The windows were fitted with violet glass to relieve the eyes.

The desert through which we passed was much like the American desert, only hotter. I have heard of American desert birds that sit on their eggs to keep them cool. I cannot imagine any bird sitting on this desert, yet there must have been plenty of them, for I saw gray and white vultures on the tops of the telegraph poles. Numbers of goats stood about in little groups, and there were camels grazing on the branches of bushes and small trees. The leaves of these desert trees are very small as a protection against excessive evaporation.

Dr. Barrett drew my attention to the fact that the desert plants are almost identical with desert plants in America. There is, of course, no botanical

connection between Africa and America, but nature has evolved almost the same plants independently in both continents.

The African desert is covered with black stones. They are sharp chips, not round stones.

Every few minutes we passed the skeleton of a camel, bleached white.

Our train moved at about eight miles an hour, steadily climbing.

Half an hour after we started we reached the first stop, Atriba. There was a station, but no town visible; just a few goats and a tall Fuzzy-Wuzzy standing underneath a large yellow advertisement for Raleigh bicycles. The advertisement showed an African riding for dear life on a push bike, being chased by an enormous maned lion—and the Fuzzy-Wuzzy was beating the lion!

The country was still desert, but we were among the foothills and traveling faster—about ten miles an hour. It was not possible to see far on account of the dense haze, which made me think of American forest fires.

It was on this trip that I discovered an original way to make toast.

At lunch the waiter handed me a slice of new

bread. I opened the window and held one side to the air. In less than a minute that side was beautifully toasted, although it remained white. Then I turned the slice over and toasted the other side. I think this must be the first instance of a person using the desert heat for making toast in a dining car.

Our first course was boiled rice, boiled chicken, and white sauce.

Perkins, who is a scientist and an authority on mammals, announced that his chicken was a mammal of some small variety. I had already eaten and enjoyed mine, so, if the chicken was really monkey, then I like monkey.

The second course consisted of slices of cold meat—mutton, tongue, and a peculiar pink meat said to be corned beef but which looked more like camel—pickles and potato salad. Beer, of course. Dessert: fruit jelly—then Turkish coffee. Quite good.

As we proceeded the heat became worse than ever, but the country was as interesting. Still desert, but no more trees, just bushes.

About two o'clock, in the distance some five miles away to the left, I caught sight of the town of Suakin. White houses several stories high all shim-

mered in the intense heat. There was no blue left in the sky; it was washed out and gray.

For centuries, Suakin was the only port of the Sudan, or, to be more correct, of the Sudans, for the Sudan is divided by nature into two distinct countries by the twelfth parallel of latitude. North of twelve, the country is one huge desert. It has the Nile, of course, but no other rivers. The inhabitants are Arabs who lead a nomadic life with their camels, just like the Lapps with their reindeer. Arabic is the language north of twelve, except for the language of the Fuzzy-Wuzzies.

South of twelve, the conditions are entirely different. The desert no longer reigns supreme. There are grassy plains and a certain amount of forest and rivers. The inhabitants south of twelve are Negroes.

When Suakin was the only seaport of Sudan it was a thriving and important city. Not only did all commerce pass in or out of Suakin, but the town was the resting place for thousands of pilgrims who sailed from here across the Red Sea to Mecca. Besides this, Suakin was one of the most important places for the export of slaves.

The harbor was filled with Arab dhows in those

days, and the town itself had wonderful palaces and fine shops. Rich merchants built houses here, and Suakin was known all over the world as an Arab metropolis.

In 1820 Ismail Pasha, the Turk, left Wadi Halfa to conquer the Sudan, and although he himself was murdered in 1822 the conquest was completed by Turkey, and General Gordon was engaged by the Turkish government to be the military governor of the Sudan. Gordon himself was more interested in the Southern Sudan than the Northern, which explains why he faces south in the famous Gordon statue in Khartoum.

The conquest of the Sudan by Turkey was the beginning of the end for Suakin. Gordon was murdered on January 26, 1885, and his death was not avenged until the battle of Omdurman on September 2, 1898. During this period there were many expeditions and battles with the dervishes, and at one time Kitchener's headquarters were in Suakin. After the conquest of the Sudan, when England's rule was established, it was found that Suakin was unsuitable for a modern seaport because the water was not deep enough for any vessels other than the old Arab dhows. Consequently, Port Sudan was

founded. This was the death knell for Suakin. Slavery was abolished and all that she has now of her former importance is her traffic in pilgrims to Mecca.

Only one white man lives near Suakin, and he is the doctor in charge of the pilgrim quarantine station.

At 2 P. M. our train arrived at Shata, which is the station for Suakin.

The platform was crowded with Arabs and Fuzzy-Wuzzies. It was evident that the arrival of such a large party of white people was a remarkable event in the life of the town.

I discovered an old Arab named Ahmed, who knew about three words in English. To him I intrusted my two cameras and tripod, as we walked off together toward the town.

The city is completely surrounded by a wall of grayish brown coral rock. In about five minutes we came to the city gates, named after Kitchener. Just inside the gateway, lying on the ground moaning, was an old hag and an old man, both blind and said to have been blinded at birth in order that they might be blessed in heaven! On the right side of the road, just inside the gate, was the civil hos-

pital. The approach to the hospital was along a pathway lined with large iron cannon balls.

I passed a man carrying a heavy load which looked like a large brown tin trunk, upon which was strapped a bundle of bedding, vividly colored with various shades of red stripes. Although this may sound unbelievable, it is not at all unusual for men to carry three hundred and fifty pounds on their backs for short distances.

The next place we passed was evidently a police station. Standing outside to attention was a smartly uniformed askari, who stood at attention while I passed. My friends walked on while I was taking a photo of the porter mentioned above, and so I told Ahmed to get me a donkey and we would explore Suakin alone.

In a few minutes I saw that we were followed by a crowd of little boys whom Ahmed shooed away, but they came back again just like the flies, which were very numerous, also. When Ahmed produced two diminutive gray donkeys, both saddled, but neither having any kind of reins, I could see from the expression in the eyes of the little boys that they were expecting something funny. Handing my lenses and cameras to Ahmed, I seized one of

the donkeys by the ear and mounted by lifting one leg straight over the animal. The donkey refused to move until one of the boys, before I could stop him, gave the animal a prod in one of its numerous sores—the usual method in the East. I thought that the donkey would never stop. All I could do was to hang to the saddle with my hands and hope for the best. He did not understand the word “Whoa!” and I did not understand the Arabic equivalent for that most necessary word. Ahmed came to the rescue, however, and explained that the proper way to make an Arabian donkey stop was to say “Hushhhhhhhhh,” and the way to make him go was to say “Harrahhhhhhhhhhhhhhhh.”

Henceforth I had no difficulty so far as starting and stopping him were concerned, but I never did learn how to make the wretched animal turn to the right or left. When a turn was necessary I stopped, and Ahmed turned the donkey and pointed it in the direction I wanted to go. I then said “Harrahhhhh” and off he trotted.

All Suakin looked as if it were falling to pieces, and it actually may. Many houses were half in ruins, and we passed some of the old palaces of which only the fronts remained. But enough of



An exhibit of the Milwaukee Public Museum
The train arrives at Suakin.



Ole Goodrich, Carveth Wells, and George Oliver leaving
Fort Portal.

their former glory was left to denote the magnificence they once enjoyed.

There were wonderful curved wooden balconies—curved *and* carved. Here and there, standing beside some ruined gateway, were cannons and old mortars. Very few people were in the main streets which had once been so thronged with business.

Practically the only place where there was life and movement was in the old market, but even here the shops were small and poverty-stricken. As I passed one of these stores Ahmed turned to me and said: "Man go London!" indicating the shopkeeper, who was dressed in Arab clothes and squatting amongst his goods. When I spoke to the shopkeeper he replied in fairly good English.

The harbor of Suakin is in the middle of the town, like a lake, and is surrounded by quaint-looking Arab buildings. I have no idea what Ahmed's explanations meant, but he gave me wonderful orations concerning nearly everything we passed. I did manage to understand him when he pointed out Kitchener's house, which is still in a good state of preservation.

Our train was supposed to return to Port Sudan at 3:30 P. M., but when we arrived at the station,

although the platform was crowded with natives awaiting its arrival, we were informed that the engine had run off the line and buried itself in the sand of the desert, and that it would require about three hours to dig it out!

Unfortunately, the dining car was with the engine, and the beer was with the dining car.

The station yard swarmed with natives in picturesque costumes, especially small parties of Fuzzy-Wuzzies carrying their swords and shields and long spears. I saw one old man hobbling along on a crutch; his right hand and left foot had been cut off as a punishment for lying!

At 5:30 the train arrived, and as a thank offering I threw a handful of small money into the crowd. There was a wild scramble for it, and the people ran alongside the train until it outdistanced them.

Ten minutes after leaving Suakin I saw my first African wild animals: five gazelles about one hundred yards from the train.

There were plenty of plovers on the desert—usually three or four at a time; also vultures, crows, and shrikes. A shrike is a pretty bird about the size of a very thin thrush, colored gray-black and white. One of the characteristics of all

shrikes is that they have a notch in the upper beak.

The sun set shortly after six. There was no color. This was the first white sunset I ever saw.

During the heat of the day there is very little color apparent in the desert, but in the cool of the evening, and especially in the twilight, it is brilliant with color.

Many of the bushes here look unnaturally green; too vivid to be plausible.

Night came on rapidly. By quarter to seven it was quite dark and I could see many camp fires dotted over the desert.

Monday, July 8th, 9:20 A. M.

We are just leaving Port Sudan! I wouldn't have missed the place for anything, because of Suakin. So far as Port Sudan itself is concerned, the best thing to do is to get out of the place as quickly as possible. The one redeeming feature is the sea and the bathing by night. We went in a rowboat about eleven o'clock last night across the harbor to the protected swimming pool. The trip was like a night in Venice, with the difference that, whereas in Venice the water would have been filthy, here the water was so clear that by the light of the moon we could

see on the bottom stones and coral and fish. There are plenty of sharks and barracuda in Port Sudan. The ship's butcher, fishing from the side of the ship as she lay tied alongside, caught a thirty-five-pound barracuda yesterday. We did not see any, but the water was swarming with tiny fish like whitebait.

The water was so phosphorescent that people diving into it made great splashes of blue fire. We swam carefully and slowly, breast stroke, and watched our hands as they swept through the water under our faces. The effect was as if the hands were made of steel and held against an emery wheel; their friction against water left showers of blue sparks trailing. The temperature of the water was about ninety in some places, and averaged about eighty-seven degrees.

We stayed in until midnight and then returned to the ship, which was brilliantly illuminated. The sea was like a huge mirror in which the whole ship was reflected. If the scene could have been photographed with the horizon line exactly the middle of the picture, the photo would have been as good one way up as the other, so perfect were all the reflections.

IV

IT IS seven-thirty, and we are just off Aden. The coast is harsh and forbidding. Great jagged mountains, evidently volcanic. Very irregular ground; the houses are built on the tops of numerous little hills. They have red roofs, and all look alike; hideous; they must be government houses to be so ugly. A thick haze hangs over the town, and in fact the sea for miles around is hazy. No blue sky at all. Nothing but small gray clouds.

8:30.

We are now at anchor within five hundred yards of the town. Small boats are crowding around us; lines have been thrown on board, and people are buying curios via a basket from liner to boat.

"I say! Hello, gentleman! I sell you one sing!" He holds up a white ostrich-feather fan. Another man is selling fans of the most vivid colors.

"Nice blue carpet! Best one!" Two men are now spreading out a lovely carpet that is bigger than

their boat. No sale. One of them produced a handful of green limes to sell!

A man has just handed me a small dodger, or handbill, printed in bold black type.

**Come and See the
MERMAIDS
3 Females and 1 male
ATTENTION
They Can Be Seen Only at the
GRAND HOTEL**

I cannot wait! I'm off to see the Mermaids.

Later.

Aden is full of camels; they seem to be used for everything, probably because they can go for such a long time without a drink! Sometimes in Aden it does not rain for several years. This probably accounts for the immense water tanks attributed to Solomon which are cut out of the solid rock. Once they are full, I should think they would supply the town for a very long time, but every time I have seen them they have been empty. The Aden Water Company supplies the town by distilling sea water and selling it.

Solomon's Tanks and Mermaids are practically the only attractions Aden has to offer. The Mermaids are dugongs. They look like smoked giants lying in coffins.

One of the specialties to buy in Aden are shark's jaws; I saw several men with canoes full of them. Our captain says that on several occasions he personally has seen sharks attack people.

July 17th.

The southwest monsoon spoiled the voyage between Aden and Mombasa for most of the passengers. But about noon to-day the *Llandaff Castle* arrived in a small inlet leading to the landing place in Mombasa.

Mombasa is a small island. The name of the seaport where we actually disembarked and to which all our baggage was labeled was Kilindini.

It was like arriving in fairyland. Delightfully cool breezes were blowing; the tropical foliage was gorgeous; coconut palms, coral reefs, and all the marvelous sea colors that are associated with coral; wonderful clouds in a perfect blue sky, and so cool! They told me that June, July, and August are the only months of the year when Mombasa has

such a climate, and that during the rest of the time it is hot and damp, probably like Singapore.

We crossed the equator at 8 P. M. on July 15th, but for two reasons there were no celebrations. One was that most of the people were seasick and the other that such celebrations have been forbidden on Castle Line boats ever since the dead body of a lady was found at the bottom of Neptune's tank, where she had been ducked with several others and overlooked—one of the duckers being her own husband.

Approaching Kilindini is like sailing up a rather small river of great beauty. Both banks are quite close and dotted with pretty houses with gardens blazing with tropical flowers.

Kilindini is the terminus of the Kenya Railway. It is probably the finest harbor on the east coast of Africa. The name means "the deep place." It is 6,616 miles from London.

The average rainfall in Mombasa is forty-seven inches.

As soon as we landed there was a terrific rush to get all our baggage and equipment, which now weighed about eight tons by the customs. Finally, most of it was placed in a truck "in bond" for

Nairobi. The freight bill from Mombasa to Nairobi was larger than from London to Mombasa. The railway rates are phenomenally high here, and the whole community is complaining about them. The trains are passably comfortable, but the railway is years behind the times when compared, for instance, with the Federated Malay States Railways.

We had two engines on our train and very soon we were climbing steadily up onto the great plateau of Kenya.

Late in the afternoon when we reached Mazera it was delightfully cool. We refreshed ourselves with mangoes and small bananas like the ones I used to get in Malay. I noticed some soursops, but they were not ripe. All the oranges for sale were bright green, just as they always are in Malay, although perfectly ripe and sweet.

During the night we stopped at Tsavo, which is 136 miles from Mombasa and 1,525 feet above sea level. This is the place where the construction of the railway was stopped by lions in 1898. Two man-eating lions waged war upon the workmen for nine months before they were killed. The lions never seemed to appear in the same place twice running, and as the work of construction stretched for about

ten miles the task of shooting them was extremely difficult. They seemed to have no fear of human beings and without the least hesitation entered houses, trains, and guarded encampments, seizing men by the throat, shaking them savagely, and carrying them off just as a cat takes a mouse. In some instances they were careless enough to seize bundles of bedding, or in one case a sack of rice, by mistake. On one occasion a lion sprang to the top of a tent containing eight men, one of whom it carried off bodily.

On another occasion a man lying asleep in his tent with his head toward the center of the tent and his feet touching the side was caught by the foot and dragged out. The wretched man clung to a heavy box, but was forced to let go when the box caught in the side wall of the tent. He then seized one of the tent ropes, but the lion sprang on him, shook him to death, and bounded away with him in his mouth.

Night after night the lions approached the camps with deep roars. Fires and rifle shots had no effect upon them. Closer and closer they came. Dead silence followed, and the men waited in terror, knowing that this meant the lions had decided to

seize one of them. Fearful shrieks suddenly rang out. The lion had his victim.

It may be wondered how the actions of these man-eaters of Tsavo can be reconciled with the placid behavior of the lions of Tanganyika. When I suggested the following explanation to Mrs. Carl Akeley she at once agreed that it was probably correct. The so-called man-eaters of Tsavo were probably as well disposed toward man as their brothers in Tanganyika before the advent of the railway. They doubtless were accustomed to living upon zebras and other wild game until the sudden influx of hundreds of men drove all this game away, with the result that the lions were driven by hunger to attack the men. Having found that the men were easy to catch, they naturally continued eating them as the next best food to zebras!

I scarcely slept a wink all night, not because of the lions, but because of the cold. I had blankets and my heavy winter coat and a hot-water bottle, but I could not get warm. At 6:40 A. M. we reached Makindu. The natives on the platform were huddled up in blankets.

At eight o'clock I saw the snow cap of Mount Kilimanjaro suspended in the sky like a flat saucer.

The sides of the mountain were not visible, only the snow cap; it was about seventy-five miles distant. Kilimanjaro is 19,710 feet high and is supposed to be the highest mountain in Africa.

While I was watching Kilimanjaro I was amazed to see, quite close to the train, four giraffes, mother and father and two babies. Then suddenly we came to a plain that was swarming with wild animals, especially zebras.

The general character of the country was a great tableland covered with brown grass. Dotted about here and there could be seen volcanic cones of various sizes. The sky was overcast with heavy gray clouds.

At two-thirty the train arrived at Nairobi. It is here that the Martin Johnsons have their home.

Nairobi is 5,452 feet above sea level and enjoys a delightful climate, although it is practically upon the equator. The annual rainfall is only 38 inches compared with from 150 to 250 inches in the Malay Peninsula! The 38 inches are fairly well distributed throughout the year; the wettest months being from March to May (18 inches) and October to December (11 inches). It is charmingly cool, es-

pecially at night, when blankets are always used. Many people have fires the year round.

Although malaria fever is not uncommon, people do not always sleep under mosquito nets. But I was glad to find that the beds in the Stanley Hotel were fitted with them. Dr. Crile told me on the *Olympic* that he had just got the latest information about malaria from the Rockefeller Foundation. He said that at the cost of over a million dollars they had made a new discovery. I found that it was the same discovery that I had made myself twelve years earlier in Malay.

When I first went to Malay I was practically ordered to take five grains of quinine every day, whether I had malaria or not.

So long as my mosquito boots were in good condition I did not contract the fever, but within a few weeks after they were worn out I came down with it and had chronic malaria for four years.

The million-dollar discovery of the Rockefeller Foundation is that the sure way to get chronic malaria is to take small doses of quinine regularly, and then be bitten by an infected mosquito.

The reason is that the quinine does not actually

made to order and delivered in twenty-four hours for seven dollars a suit.

Nairobi has several excellent hotels, but the Stanley is probably the most popular. Here you find dozens of young Trader Horns, and old ones too, refreshing themselves at a good old-fashioned bar.

Nairobi is even more "English" than British Columbia. Here you see the type of Englishman that the rest of the world always thinks of as typical, the "Piccadilly Johnnie with a Glass Eye." Locally they are known as "Nairobi Stiffs."

I was astonished to watch the people take their places in the dining room of the Stanley Hotel. Ladies came in accompanied by men dressed in the filthiest clothes imaginable, shirts open at the neck, and with dirty gray sweaters that once were white flung over their backs like capes. I know many hotels in as wild places as Nairobi that would have turned these people out. But in Kenya the thing to do is to let yourself go. One young blood who came out with us was one of the smartest and best-dressed men on the boat. I met him in Nairobi wearing an old pair of corduroy trousers, a khaki shirt open at the neck, and a sweater. His boots

looked as if they had never been cleaned; he was dirty and dusty, and he was sitting in the hotel lounge drinking a whisky soda with a pretty girl!

People who have been accustomed to living in tents and generally roughing it for a living and not for sport never "rough" it; that is to say, they live as decently as possible and keep clean and shave and as far as possible remain civilized. It is the amateurs who rough it unnecessarily.

Just as in all other parts of the Empire, there is a great gulf here between the government officials and the settlers or planters. One class has position and influence, but the other has money.

When a government official also has money he is a god; but no matter how much money a settler may have, no matter how important he may consider himself, he actually is insignificant in comparison with the humblest of government officials. This makes two distinct upper classes of society; as for the wretched white people in minor positions, such as clerks and overseers, they are left to themselves.

I am told that there are all kinds of scandals going on. Husbands and wives call "half time" and change over. There will soon be plenty of material

for Somerest Maughan. So far there has been no actual famous murder case to inspire another play like *The Letter*, but there is bound to be one sooner or later.

Friday is market day in Nairobi; the market is held behind the Stanley Hotel under the direction of a European auctioneer and three white assistants. Everything is auctioned off. I made the following list of articles, and I was told that this was by no means a good market day! This list is in the exact order in which I saw the things.

Rhubarb, peas, cauliflowers, beetroots, papayas, potatoes, pineapples, lemons, grapefruit, strawberries, lettuce, wineberries, carrots, tomatoes, mangoes, bananas, oranges, tangerines, celery, eggs, bacon, brussels sprouts, butter, cheese, cut flowers including roses, vegetable marrows, mulberries, ducks, geese, chickens, turkeys, rabbits, French beans, spinach, turnips, and cabbages!

A number of European ladies were bidding for the things, and apparently the auctioneer knew everyone. I saw no money pass, but when a lot was knocked down the auctioneer gave the name of the bidder to his assistants, and they noted it down.

Cherry Kearton, the famous naturalist and pio-

neer in wild animal photography, friend of Roosevelt and author of about thirty books on wild life, was in Nairobi.

He was bitter in his denunciation of the modern safari, and from what I myself have seen I entirely agree with him when he says that there is no sport in hunting wild animals from motor cars. It would be a greater feat to secure a deer in Richmond Park than to secure a lion out here in Tanganyika. English deer have at least learned to fear motor cars, but the wild animals of Africa have not.

Such hunting for museum purposes may be legitimate, but to drive a car within a hundred or even ten yards of a beautiful animal like a zebra and shoot it is the most unsportsmanlike act I can imagine, yet that is the usual method of "hunting" on safari to-day.

Cherry Kearton was photographing birds. He told me that he was making a film of the life of the secretary bird. He had located one that was sitting, and hoped to get a complete record from laying to hatching.

On Friday morning, July 20th, Kearton's assistant photographer arrived from Europe, minus films on account of a shipping strike in Antwerp.

Kearton asked me to lend him some film, because he had just located a great flight of flamingoes which he estimated by the tens of thousands!

He said the whole sky and land for miles was pink with them, and that they were on some annual migration.

V

OUR safari left Nairobi at noon on July 21st. Pat Ayre, one of the most famous hunters in East Africa, led the way in a new model Ford. Barrett, Cudahy, Goodrich, and I followed in a seven-passenger Buick. Gromme and Perkins brought up the rear in a Chrysler.

Five motor trucks laden with tents, food, Negroes, and other equipment had gone on ahead.

For an hour we passed through richly cultivated hilly country. Many of the estates were planted in coffee.

The people on the roads were principally Kikuyu women in brown leather skirts carrying heavy loads as well as babies. The women carry their loads on their backs and take the strain by means of a leather strap across the forehead. Women here are beasts of burden, but besides their heavy loads and babies they load themselves with pounds of brass, iron, and copper wire. Legs and arms and neck are covered with these ornaments. Their heads are shaved and shiny.

The road was pretty good, rough in some places, but not as rough as I had expected. Gorgeous wild flowers lined the roadside, especially a blue flower much like the ordinary forget-me-not.

On each side of us the country soon began to look like a park with large open fields of long grass with beautiful flat-topped trees. There was nothing to suggest the tropics. No palm trees or anything resembling a jungle.

At four o'clock we stopped at a wayside store to buy cigarettes and beer.

There were wonderful violets and scarlet carnations growing around the little store, and both had the strongest perfume I have ever noticed on these flowers. The storekeeper was a European, and he told us that it frequently froze at night.

Soon after five o'clock we came to the rim of the Great Rift Valley, which seams Africa from north to south and extends through the Jordan Valley to the Taurus. This is one of the world's greatest geological features. The valley received its name from Professor Gregory in 1892. To-day there are Rift Valley Hotels, Rift Valley Farms, and Rift Valley everything all over East Africa.

By 5:30 it was rapidly getting dark and was so

cold that I put on my sweater and my winter overcoat.

When at 6:15 we arrived at our camp for the night we found the trucks already there. The cook had a large fire going, and our seven green waterproof canvas tents were pitched in a neat row.

Our camp was surrounded by mountains and strange trees. The stars were shining, and a strong cold wind was blowing when we sat down to supper, all wearing coats or sweaters, or both. The camp was lit by means of American storm lanterns.

At ten o'clock I crawled into my Jaeger sleeping bag wearing all my clothes except my trousers and coat. I carried a hot-water bottle and wore a sweater and had my winter coat over my bed. As I lay awake I could see the Southern Cross twinkling brightly through the doorway. The wind blew violently until three o'clock. I heard no animals.

At four-thirty the next morning my boy called me and placed beside me a cup of hot tea. It was pitch dark. The Southern Cross had disappeared, but Orion and the Pleiades were visible. At 5 A. M. Gromme burst into Barrett's tent and said that Perkins wanted key number 11. "What's he want

it for?" inquired Barrett. "He wants his long underwear; says he's nearly frozen!" replied Gromme.

6:10 A. M.

There is still no sign of the sun, but the stars are rapidly fading. I can hear plenty of screech owls. The tents are now down and the boys are packing them into the trucks. Breakfast is now served by the light of three lanterns.

6:15 A. M.

This camping place is forty miles from Nairobi, right out in the wilds, but a large touring car has just passed us, full of girls in evening dress and men! They are returning from a dance in Nairobi.

6:20 A. M.

The birds are waking. The stars are gone, but the sun is not up. Our lanterns look a bit dim, but still throw shadows.

6:40 A. M.

We are off again. Each of us has a cloth-covered water bottle full of boiling water. The first game!—about a dozen impalla less than fifty yards away.

The impalla is one of the most lovely and speedy of the antelopes, greatly celebrated for its jumping



The Mountains of the Moon Hotel at Fort Portal has a magnificent bar, Frigidaire, and Delco lighting system.



An exhibit of the Milwaukee Public Museum

Beer through straws is a favorite beverage in Africa.

ability. Only the male has horns, which are gracefully curved and grow to about thirty inches in British East Africa.

The road is full of holes made by the ant bear, which is an animal with a long low body about six feet long. Its snout, tongue, and ears are extraordinarily long, its legs and tail extraordinarily short. It lives in a burrow and feeds upon ants. It is found all over Africa.

We have just seen a steenbok. This is one of the smaller antelopes rarely found in herds. It is interesting to note that it takes the place of the hare for coursing purposes, and for this reason it is preserved in the region of Kimberley.

Doves are cooing all around us. Pat Ayre has told us to put our watches back to 6 A. M. because the sun is just showing over the horizon, and for camp purposes sunrise is six o'clock.

The red glow of the sun is lighting up the tops of the volcanoes all around us. Pat says that last time he was here he saw an aeroplane beside the road!

6:20 A. M.

We have just left the main road and are following a rough trail similar to those on the American prai-

ries in the old days; just a couple of wheel ruts across the open country.

There's a secretary bird about seventy-five yards off. He has evidently caught a snake, because he is busily pouncing upon it.

A few minutes after we saw the secretary bird Pat Ayre stopped the car abruptly and examined the road. Lion tracks, and quite fresh ones, pressed into the black dust!

6:40 A. M.

We have just passed a common jackal standing by the roadside within five yards of us. He looked very much like an American coyote. He showed no fear, but calmly watched us as we drove by.

There are at least six varieties of jackals in Africa, and I should think that their pelts would be valuable. (From this point in my diary, when I mention seeing animals I mean those quite close to us. It must be remembered that practically all the time we could see many others in the distance.)

About three hundred yards away I can see eight congoni, and a little farther off a large herd of zebras and four giraffes!

6:42.

All that in two minutes, and here come a lot more congonis and dozens of those beautiful little Thompson gazelles called "Tommies." There are a few Grant gazelles among them.

Congoni is the Swahili name for hartebeest, of which there are about nine varieties. They are stupid-looking animals, and actually are stupid and easy to shoot. Both sexes have horns. The front legs are a good deal longer than the hind, so that their backs slope considerably. This gives them a ponderous method of galloping. Like practically all the animals out here, they do not associate a motor car with their most deadly enemy, man, and will allow you to drive up within a few yards of them. Personally, I would as soon shoot a domestic cow as a congoni.

The zebras were more shy and galloped off in a cloud of dust, but the Tommies raced along beside the car and seemed to enjoy cutting across our path in front of the radiator. These little gazelles stand only about twenty-five inches high and are distinguished from all others by a broad black band or stripe on each flank like the watermark on a ship.

Grant's gazelle is larger than a Tommie, and much harder to see, as it is more evenly colored and has no water line!

7 A. M.

We have passed a number of ostriches; the cocks are black and the hens gray. This drive is like a sight-seeing tour of all the zoos in the world! It is perfectly amazing the number of animals in sight at one time, and we are not in the game country yet.

The wild cock ostrich is said to have none of the savage nature of the domestic variety, yet whenever an ostrich goes to a water hole for a drink all the other animals make way for him.

We are driving across a plain covered with grass about three feet high, the color of ripe wheat. On both sides, flanking the plain, are ranges of volcanic mountains. The colors of the grass vary from a light yellow to a rich golden brown; there is very little green, except here and there a flat-topped tree or a small thorn bush.

7:15.

I see a skeleton by the roadside, and perched on it, three black crows. An animal can be alive and

well, and a skeleton picked absolutely clean, all within an hour!

Some ostriches quite close by.

The sky overhead is apparently clear blue until you use your field glasses, and then you may notice some tiny black specks; these are those untiring watchmen—vultures and marabou storks.

We are now rapidly ascending and shall soon begin to cross the Mau Escarpment. Trees are more numerous. Animals everywhere

7:30 A. M.

We are becoming blasé! John Cudahy is nodding in the front seat, and Barrett shows signs of dropping off, unless something really exciting occurs soon.

8 A. M.

It is still too cold to discard our sweaters and coats. Hello! Here we are passing quite close to a little volcano, extinct, of course. Pat says that a friend of his once saw a number of lions inside the crater. We are going to try out luck. The car is now off the trail, and we are driving across the grass to the foot of the volcano.

That was quite a thrill! We climbed up about a hundred feet, but instead of finding lions we found ticks! Ticks are even more numerous than zebra. When we looked down on the other side of the volcano we saw four very fine giraffes and a large herd of game feeding peacefully on the plain below. The giraffes saw us and galloped off, looking perfectly ridiculous. Every few seconds they would stop and look round, then gallop off again. Their movement is like that in slow motion pictures, even when they are going at full speed!

Pat Ayre has just told me of an amusing experience a friend of his had with a rhinoceros recently. He had been plowing a field with a tractor and had left the machine for a few moments untended. Suddenly a rhino rushed out and charged the tractor again and again until it was completely smashed. Then the rhino lay down and died!

9:15.

We are crossing the Escarpment. The air is even cooler than early this morning, and I am wondering whether to put on my sweater again, which I removed after climbing the little volcano a few minutes ago.

9:30.

Wonderful! Twenty giraffes! They are watching us with great interest. Pat stopped the car while I took some movies. Then Barrett walked up to within a few yards of the largest giraffe and took his portrait.

9:55.

There are some beautiful cranes standing in a pool of water; they too apparently have no fear of the car. We whiz by and start racing a Grant gazelle. Faster and faster! The speedometer registers thirty miles an hour and the gazelle is running beside us quite leisurely. Suddenly he puts on a spurt and dashes across our bows into the brush! Pat says that he has timed a Tommie doing forty!

10:30 A. M.

Here come some Masai with a large herd of cattle. We are in the Masai Reserve now. The Masais are of Nilotic origin and number about 22,000. They are the aristocrats of East Africa, and are the most dreaded warriors of this part of the world. They are said to live entirely upon blood and milk. Just as they milk their cattle, so do they bleed them. There was a little trouble with them at first

under British rule, but now they are settling down peaceably. In 1924 the Masai Reserve was made a closed district, and cars cannot enter the reserve without reporting. There are armed guards at the border of the reserve, and each occupant of the car has to sign his name on entering and leaving the closed territory.

11 A. M.

We have arrived at a Masai trading post called Narok. Two or three general stores are full of half-naked Masai men and women. The men are remarkably fine specimens; tall and slight, carrying long-bladed spears, and with a skin cloak thrown over one shoulder. The women have shaved heads and are decorated with coils and coils of metal wire, bound around their arms and legs, and hanging in big circles around their necks. Both sexes have the lobes of their ears pierced and stretched to an incredible degree. Some of the holes in their ears would contain a dinner plate. After a good deal of perseverance we took several photos of them. We were told that there were great feasts and ceremonial dances going on in the reserve in connection with circumcision rites, and that such celebrations



An exhibit of the Milwaukee Public Museum

A rhinoceros hides behind an ant hill to inspect the party.



An exhibit of the Milwaukee Public Museum

The way to make him wild is to shoot at him.

only occur about once every seven years. At this time it is not too safe to be in the reserve, because the young men upon attaining their manhood used to christen their spears by killing a man, and are still likely to revive this agreeable custom.

We had our lunch in one of Roosevelt's old camps. The surroundings were beautiful. Many of the trees have bright red blossoms, and some yellow. The trunks were in several cases more brightly colored than the leaves or blossoms. Some were bright yellow, and some pale green, a few actually red. All the large trees I have seen so far, as well as most of the bushes, are covered with sharp thorns and prickles. The shapes of the trees are queer, and the foliage on some of them is that unnatural green which in the future I shall call African green. The ground swarmed with small rat-like animals, which kept running along little tracks between one clump of bushes and another.

2:15.

I could have sworn that what I saw was a herd of American bison, but they were gnus. At first glance they look like scraggy thin bison, but they have long white beards and much longer horns than the

bison. Both sexes have horns. The only useful part of a gnu is its tail, which is used locally as a fly swatter. The Masai kill hundreds of gnus with poisoned arrows, merely for the sake of the tails, the carcasses being left for the vultures and hyenas.

The herd galloped toward us and examined the car, then stampeded and galloped alongside like mad, darting from side to side, bucking like bronchos and throwing up a cloud of black dust. When they decided to cross the road in front of us we stopped. They thundered across in a long line six or seven deep, and after them came a large herd of Tommies. The young Tommies do not run like the adults, but keep jumping up into the air as if to get a look around.

3:40 P. M.

Mrs. Wart Hog and family appear. Mother is in front, and her family of five follow her in Indian file, trotting gayly beside the car, with their tails straight up in the air in a most comical fashion.

The wart hog is probably the most ferocious-looking animal in the world except perhaps the babirusa of Malaysia, whose upper tusks actually

penetrate the skull and grow up from the top of the animal's head.

The African wart hog is a wild boar of rather diminutive size, but with enormous tusks, those in the upper jaw sometimes reaching about a foot in length, and the lower ones, five inches. They often sleep in the holes made by the ant bear, which they enlarge for their own convenience.

When chased they can dig holes with remarkable speed and retire into the holes backward. When attacked they will fight to the last gasp. The young ones are striped.

4:10.

This is really rough riding. As a rule there are no bridges and we cross ravines and river beds in a most hair-raising fashion. Our Buick is fitted with specially large wheels for rough country.

There is another steenbok; they are evidently not nearly as common as the other antelopes.

Hush! No talking. We have stopped dead and are all looking through our field glasses. It is 4:45 p. m. If I had not seen Martin Johnson's picture, *Simba*, I probably should not have noticed those nine pairs of yellow ears sticking up over the long

grass. Lions! Nine of them in a row, watching us intently. Pat is now slowly driving through the grass toward them. They are not a hundred yards off and still they make no movement. Closer and closer! I have reached for my camera.

What excitement! We are all talking in whispers. One big-maned lion, wiser than the others, has decided that we are dangerous. He has slowly risen, given us one look, and is slinking away. He has disappeared over the side of a donga, which is the native word for a dry river bed.

There are lions in front and behind us. They are moving about in the grass, and have surrounded us. Not a sound. No roars. Just curiosity. Every second or two they bob up and look at us over the grass.

We are within thirty yards of them, and I have used up all my motion picture film.

Well! That's over. We are not hunting to-day, so we turn our car and drive back to the road.

5 P. M.

Good Lord! Just for a change here come nine giraffes. Only a few yards away. Now they are off, but they stop to take another look at us. Things

are happening quickly. It is only 5:20, and we have zebras, topis, gnus, congonis, impalla, and Tommies all around us. What are the nine lions doing about it? Heaven knows. Apparently lions mix with their prey on quite friendly terms until they become hungry. They certainly do not go rushing about slaying animals right and left, as I have read in some ridiculous books on Africa.

It is now beginning to get dark. Pat stops the car and looks for water.

5:40 P. M.

We have come to a river bed that is dry, except for a few small pools of slimy green water. Here we shall camp for the night.

Water is the great problem in Africa. No amount of boiling or filtering can make this green slime fit to drink. It has to be distilled. Everyone on safari carries a still. Without it the safari would be impossible unless you do as one rich American out here did! He transported drinking water from a spring one hundred and forty miles away in large iron tanks. He told me that his water cost him a dollar a gallon and he much preferred his guests to ask for whisky.

The next morning we had our breakfast by starlight: eggs and bacon, toast and tea. The temperature was fifty-three degrees and there was a slight dew close to the ground, but not on the long grass. Sometimes out in Malay I have been wet through up to the waist from walking through grass early in the morning, so heavy was the dew there. Pat said that this is often the case out here, but not at this time of the year.

About sun-up a jackal began running in front of our car in the wheel rut. I timed him with my watch, and he ran in front of us for two minutes while we were going thirty miles an hour. Then he stood to one side and watched us pass; no sign of fear, not in the least out of breath!

For the next fifteen minutes we passed large numbers of congoni and topi. The topi looks something like a congoni, except that he has dark blue hide on the hind quarters and is more graceful in every way. Topis are found in herds up to about forty.

At 7:30 we arrived at the camp of Mr. Klein, one of the best known white hunters out here, a New Yorker, and an expert photographer of wild animals.

Plenty of tsetse flies were around us! They look something like a gray horse fly, but not quite so large. They are considerably larger than an ordinary house fly. Instead of their wings being arranged side by side as they are in the house fly, one wing folds over the other. They are provided with what appear to be two proboscides. One sticks out in line with the fly's body, and the other at right angles to it. It is the latter which does the damage.

Motor cars seem to attract tsetse flies. Ours was full of them, and we were continually swatting them. The bite hurts, but once the fly has injected his proboscis there is no pain. He stays until he has swelled up to the size of a large pea.

But the greatest danger in Africa does not come from tsetse flies nor from lions. The most dangerous animal in Africa is the jigger, and she was imported from South America. They usually, but not always, burrow in under the nail of the toe or finger. They are usually extracted by a native who is expert in digging them out by means of a blunt pin so as not to break the body of the animal. If left in they breed enormously. They are such a pest in Uganda that natives have been known to hang themselves in despair.

For the next hour after we left Klein's camp not a moment passed without our seeing various kinds of animals, including large numbers of gray monkeys.

The monkeys were on the ground, but when they saw us they stood up on their hind legs and made off with large leaps toward the bush.

There were plenty of small hornbills, but they were insignificant in comparison with my old friend in Malay, the *Dirhinoceros* hornbill, as I believe he is called, who is about five feet long; these were only about eighteen inches long but they flew like the big ones.

It was this morning that we saw our first dik diks—beautiful little antelopes. There are about six different kinds of dik dik, varying in height from twelve to twenty-two inches. They have tiny horns, and in some cases the snout is prolonged like that of the tapir. Although very tiny, they are not so small as the mouse deer or chevrotain of Malay.

The animal circus continued as we kept on through the prairielike country. A giraffe with a twisted neck stopped to look at us. Pat Ayre says that on account of his deformity, which must have been caused by some injury while he was quite

small, he is well known through all this territory.

Every five minutes or less, we met groups of animals or large herds; very soon we began not to take much notice of them until we came across two wonderful little antelopes which bounded up into a mass of great granite boulders. They were klipspringers, often referred to as the chamois of Africa. Like the chamois, a klipspringer can bring its four feet very close together when jumping from one rock to another, and it is said that it can easily balance itself on a space the size of a dollar. It is quite a small animal, only about twenty inches high at the shoulders, and has short straight horns which sometimes reach four and a half inches in length.

Toward noon we arrived at a gold mine called Kilimafeza and passed a large car containing a man and several ladies, including two young girls about fifteen years of age. They looked like Americans, but they did not speak to us, probably because we all looked like tramps.

The country was still full of game, but, on account of the heat, they were huddled together in groups under the skimpy shade of the thorn trees.

About half-past twelve we arrived in the camp which will be the headquarters of the Museum

expedition for the next month or two. The place is called Saronia and is close to a donga in which there is a supply of the usual green slimy water. Our tents were pitched in what looked exactly like an old apple orchard.

My tent was about seven feet long and six feet wide, but less than six feet high, so that I could not stand up in it. Over the tent was a fly to shelter it from the sun, and the fly extended about four feet beyond the door, thus giving me a little veranda. It was there I did my typewriting and washing. I had a canvas sheet on the floor, a camp bed with an air mattress, a Jaeger sleeping bag, a mosquito net, and a horsehair pillow like the one I used for years in Malay.

The bed occupied half the tent. On the other half was a green canvas sack containing all my clothes; there were two empty wooden boxes to act as tables, and outside under the fly an air-tight, water-tight tin trunk containing all my films and instruments and papers.

My personal boy was called Teo. He was a member of the Hyamweze tribe, and very black. His wages were \$15 a month. He could speak a few words of English.

The personnel of our safari was as follows:

15 Porters. \$5 a month. The first porter's name is Jesus.

1 Headman named Ndundu. Wages \$20.

2 Cooks both named Musa. Wages \$21 and \$13 a month.

4 Gunbearers. Feragi, Kewani, \$20 a month; Salem and Mutai, \$12 a month.

5 Personal boys. Ali, Teo, Luyo, Kembo, and Homisi, \$15 a month.

3 Motor drivers. Alifeyo, Juma, and Yonusi, \$25 a month.

These men were all camped about a hundred yards from our tent. Between our camp and theirs was the Marquee tent which was our dining room, and the kitchen and storehouse, built of mud and branches.

The men slept either in the open or under small white tents.

Martin Johnson and Osa, together with their three American boy scouts, were camped about half a mile from us.

VI

July 24.

About two o'clock this afternoon we drove over to Martin Johnson's camp, which is picturesquely situated at the base of a kopje, with huge boulders of granite towering over the tents.

Martin appeared, dressed in khaki and wearing a pair of well-worn top boots. He is a tall man and pretty heavily built, clean shaven and with a round fair face. He was very cordial. After a few moments the three boy scouts put in an appearance.

They told me that they had been in camp only ten days and had seen 102 lions. Each boy had already shot a lion.

The great thrill for them, however, was to take place that night, because Martin Johnson had rigged up a kind of strong cage on one of his motor trucks, and the three boys were going to spend the night in the cage. The idea was to watch for lions and take flashlight pictures of them.

While we were talking Osa appeared.

She looked exactly as if she had stepped off the stage in a theater. She is very attractive and pretty, with lovely teeth. Very small and nicely manicured and generally smart, and in close contact with her vanity case.

She wore a large Stetson cowboy hat, a bright blue cotton shirt that had just been ironed, long gray trousers with a beaded belt, and brown leather boots.

She and Martin were overflowing with excitement about an experience they had just had. A great migration of wild animals had been proceeding for several weeks, and the Johnsons had found a place where the plains narrowed into a kind of bottle neck through which the animals had to pass, packed close together. They told me that they had photographed a dense mass of wild animals, ten miles wide and about thirty miles long! They estimated the number at certainly no less than ten million!

The animals were led by a herd of zebras ten miles wide and five miles deep, followed by an equal or probably larger number of gnus, who, in turn, were followed by a mixture of other animals, including lions! It took them days to pass the spot

where Johnson was stationed with his motion-picture camera.

Johnson told me that in the last three years he has seen two thousand lions. I can readily believe him, because I myself have seen thirty-five in five days, which would amount to more than seven thousand in two years!

He showed us how to rig up our cameras in the motor cars and generally gave us other good tips as to how to get the best results.

Osa, too, gave us several good ideas. She told me that she had recently got some fine lion pictures by killing a zebra and tying the dead animal to a rope and dragging it behind her car. I immediately made up my mind to go fishing for lions—land trolling, in other words.

* She has recently made a very interesting discovery, namely that whereas giraffes cannot sneeze, lions certainly can! It appears that, *causa scientiæ*, she killed one of the few million zebra and filled its stomach with red pepper. It was not long before one of the several thousand lions that graze over Tanganyika approached the zebra and took a mighty mouthful of red pepper. There followed a

10 P. M.

I am sitting in my tiny tent writing by the dim light of an American storm lantern. Two lions are roaring not far away, and every now and then I hear a hyena's blood-curdling laugh. The lions are probably attracted by a couple of zebras which Mrs. Johnson shot to-day to use as bait for the lions which the boys hope to photograph from the motor truck.

The temperature outside my tent is 55° , inside 60° ; there is a cool wind and I am wearing my sweater.

I keep a large flashlight beside my pillow inside the mosquito net, because hyenas have a way of coming inside one's tent sometimes, and the lions sound uncomfortably close.

July 25.

We left camp at quarter to six, in the dark, and set out for our first real day's hunting.

Before the sun was up we came to a herd of zebra, and Cudahy shot the first official animal! In the meantime, the other zebras galloped off a short distance and stopped to watch the killing and measuring up of their companion.

Although the noise of the rifle shots had for a moment startled the game it apparently made no real difference to them because we were surrounded by Tommies and zebra grazing as if nothing had happened.

We were on the lookout for a band of lions which we had been told were about twelve miles from our camp. We came upon them very suddenly. Right ahead of us, not very far off, lying in the shade of a large thorn tree, we saw a heap of them. That is the only way I can describe them because they were huddled up together as if they had been dumped there from a big sack. They showed no concern but watched us calmly as we approached.

We were cranking our motion-picture cameras for all we were worth. When we came quite close the lions roused up and separated slowly, walking leisurely into the grass. We counted no less than eighteen. None were cubs, and none had manes. They were lionesses and young lions.

The hunters would dearly have liked to shoot, but as the museum was out to secure definite specimens, none of which were among these, we left them alone. They did, however, shoot a congoni, which we used like a trolling spoon. First of all, a

ring of rope was placed around the congoni's neck. Then a long rope was securely tied to the back of our car. One end of the rope was threaded through the ring on the animal and the same loose end was carried back to the car and held by me. When the car started the congoni came along quite smoothly, except occasionally, when he got tangled in a tree; then we either stopped and disentangled him, or pulled the tree down.

Unfortunately, the lions must have already fed, for they refused to be beguiled by our art.

When we got back to camp we found Martin Johnson and Osa waiting for us with the story of the boys' adventures in the cage the night before.

Everything had worked out strictly to schedule. At eight o'clock a lion walked out and set off the automatic flashlight. A moment afterward seven more lions approached the cage. One knocked down the camera and bit it to pieces, destroying the plate carrier completely, and leaving big dents and a few holes in the metal case of the camera itself. Another jumped into the front seat of the truck and rested his paws on the steering wheel. Another tried the strength of the tires by biting at them savagely, but they were Fisk tires and did not puncture. Another

—a big one—stood on his hind legs and took a look at the inside of the cage!

I asked the boys why they did not fire their rifle and thus attract the attention of Martin Johnson. They told me that they had discussed it, but had decided that if they called Johnson they would be risking his life. They made up their minds to wait until morning and hope that their cage would withstand the lions.

I was amused to notice that the boys did not seem to see anything funny in the situation; here were three nice specimens of boys placed in a cage for the edification of a crowd of lions. It was the zoo reversed!

July 26th.

Barrett and I stayed in camp, while the others went on with the hunting.

Our skinners were busy with a zebra and three topis. The quantities of meat which we have had to throw away have attracted a great many marabou storks, vultures, and ravens. We have purposely thrown the meat close to camp in order to get the birds used to us and thus enable us to secure some good pictures. All day long they sit around in

the trees or stand about on the ground waiting for meat. The ravens are the bravest; they fly down and perch on top of the meat and peck at it. Then come the vultures rather nervously. Last of all come the marabouts, slowly and cautiously. Then one of them takes a piece of meat weighing about five pounds, swallows it whole, and walks off to digest it in the shade of a tree.

This morning one of the men brought a beautiful bright green chameleon into camp. He was about ten inches long, and looked something like a little dinosaur!

About four o'clock in the afternoon we went lion hunting, but had no luck. Darkness came before we returned to the camp, so we switched on the headlights and two searchlights, one on each side of the windshield, and hunted hyenas.

Motoring at night in this country is exciting because the darkness is full of glittering eyes. The little Tommies have pale green eyes at night, but hyenas have red ones. The searchlight picks them out instantly, and they make splendid targets for our hunters, who kill hyenas on principle, because they are such a nuisance around camp.

Hyenas take a lot of killing, and when wounded



An exhibit of the Milwaukee Public Museum

The Giraffe—he is quite dumb.



An exhibit of the Milwaukee Public Museum

Flamingoes on Lake Nakuru.

they snap at their own bodies and eat themselves!

All kinds of interesting animals that we rarely see in the daytime come out at night. Bat-eared foxes are common at night, and they seem to hunt in pairs; they are pretty little animals and would make lovely furs.

There are always plenty of jackals at night, but we saw no ant bears, although they must be very common.

On my way to the Johnsons' camp to-night I met a porcupine, much larger than the American variety. He had lovely long quills, but I gave him a wide berth!

Lions destroyed another of Johnson's valuable cameras last night; he has decided to give up taking flashlights on moonlight nights!

He showed me some prints of his latest lion photographs, which are far better than any he showed in *Simba*. His new pictures are of maned lions, and he has got them in all kinds of positions and situations. Many of them look just like the statues of lions in Trafalgar Square.

One of the scouts tried to shoot a lion with a bow and arrow to-day, but fortunately for him he missed!

When the hunting party returned this evening they told us that they had discovered a very large giraffe fast asleep standing up. Gromme drove within thirty feet of him and took a series of photos before the animal woke up! This distance of thirty feet was not a guess, but was actually measured after the giraffe had run away.

July 27th.

That extra six degrees' temperature last night made sleeping much more difficult. Here are some temperatures taken at intervals throughout the day.

8 A. M., 70

9 A. M., 80

10 A. M., 90

11 A. M., 96

Noon, 92

3 P. M., 92

6 P. M., 74

8 P. M., 70

We then had a shower of rain, and the temperature dropped ten degrees in ten minutes!

Generally speaking, there is a range of fifty degrees daily.

VII

July 28th.

Our camp last night seemed to be surrounded by lions; we decided to hunt them to-day. Teo called me at 4 A. M., and we were on our way through the darkness by five o'clock. At 5:35 we spotted a lioness with our searchlight, but she was too small for museum purposes, so we let her go.

Just at daylight we came upon two large lionesses out in the open. Except for looking puzzled as we approached them, they showed no fear, but slowly walked to the edge of a donga and slipped down into it. We had a large wart hog in the back of the truck which we threw out as bait.

I should explain that our usual method of procedure in hunting is as follows:

Pat Ayre, Cudahy, Barrett, and I ride ahead in the Buick, followed by Gromme, Perkins, and Goodrich in the Chrysler. Following them is a motor truck containing about six men whose duty it is to pick up the dead animal and hurry back with it to the camp for the skinners.

As soon as an animal is shot a temporary shelter is erected over it to protect it from the sun. Gromme and Perkins take its measurements and photograph it from various angles. It is then sent back to camp and skinned. The hide is salted and placed to dry in the shade; the carcass is carefully stripped of its flesh and the skeleton is put in a tree to dry. All the skeletons and skins have to be carefully numbered, so that when the animals are put up in the museum no mistakes will be made, such as placing a zebra's head on the skeleton of a giraffe. No shooting for sport was indulged in, nor was there any trophy hunting.

At 7:35 we saw two large lionesses eating a kill, while vultures waited for them to finish. They took little notice of us, and we continued on until eight o'clock. Then we came upon the sight we longed for—a great-maned lion standing out in the open, with a fine lioness beside him.

These were exactly the animals the museum wanted. We decided to attack them.

Not until we were within fifty yards of the large lion did he show any particular interest. He was standing almost facing us when Goodrich fired. The shot struck him in the chest. He gave a leap

and began to rush about when Goodrich fired again. The lion dropped instantly.

We examined him and found that the second shot had been a true Crile nerve shot. In the meantime, Cudahy fired at the lioness on the run. She was badly wounded, but recovered and ran off on three legs into some dense bushes on the edge of a donga.

We got out of the car and approached her hiding place. Our gunbearers threw stones into the bushes and the lioness answered with great roars. Soon the roars ceased, but it was dangerous to enter the bushes until we were certain that she was dead. We set fire to the grass and brush while Gromme scrambled up a tall tree and tried to see into the donga, but still there was no sign of the lioness.

As it was nearly luncheon time we retired into an apple orchard made of thorn trees—so much of the Tanganyika country looks exactly like an old-fashioned apple orchard—and ate. We then returned to the donga and discovered the lioness lying at the bottom on the sand, dead.

Cherry Kearton had told me that lions sometimes had a spike like a thorn in the tip of the tail, and that the legend was that the spike roused the

lion to fury when he lashed his tail, and thus gave him extra courage to face his enemies. The first thing I did when the old maned lion was safely dead was to examine his tail, and there, sure enough, was the spike Kearton had described. None of the other lions or lionesses subsequently killed by our party had this spike, but there is no doubt about the authenticity of this one. All the members of our party saw it.

Another characteristic, stranger, even, than this, is that all lions and lionesses have in the fleshy part of the shoulder in front a floating bone, about three inches long, slightly curved and about the thickness of a match. This bone is not attached in any way to the rest of the lion's skeleton, and is supposed to be the relic of wings, when lions had them!

This lion and lioness were both just under nine feet in length.

Dongas, or water courses, fringed with trees are typical of Tanganyika lion country. During the dry season they are either entirely dry or have only a few pools of filthy water in them, but in all of them, even in those that are dry for months at a time, you can find beautiful pink clamshells, about the size of the clams we get in America. Pat Ayre says that

after months of drought, when rain fills up the dongas, there are plenty of fine fish.

This corresponds exactly to my experience in Malay, where I have often seen a man go fishing in absolutely dry land, armed with a spade instead of a fishing rod, and dig up all he could carry.

Martin Johnson showed me another camera which the lions had chewed up the night before.

July 29th.

To-day has been full of thrills. We started out at five-thirty to look for lions and drove for miles across plains swarming with gnus, zebras, antelopes, and gazelles. Every little while we saw a large hyena slinking off to his den. We saw dozens of monkeys. Monkeys and hyenas seem to be the only animals that realize the danger of a motor car. No lions were out, although we had heard them roaring all night close to camp.

About nine-thirty we came to a large herd of domestic cattle in charge of a Masai shepherd, who looked very picturesque and noble with a brown skin over his left shoulder, leaving his right arm free to carry several long spears. Then we saw another Masai with a long bow and several poisoned

arrows. In a few minutes we came to the boma they lived in at night; simply a ring of thorn bushes forming a large paddock into which they drive their cattle. At intervals around the side of the boma were small round huts, in which we could see women and children.

It is strange to meet shepherds with their flocks in a country swarming with predatory wild animals.

We kept on, sometimes passing huge piles of granite boulders, on the tops of which we often saw rock rabbits or hyraxes, with lovely brown skins. These little animals are allied to both the elephant and the rhinoceros! They are found in many parts of Africa and are hunted for their fur to such an extent that there is talk of protecting them. They were very shy. I found it impossible to photograph them.

About twelve o'clock, just as we rounded one of these kopjes, we came upon a white man sitting underneath a large green umbrella, painting!

We stopped and were about to speak when he gave us a glance of annoyance, probably thinking that we were a bunch of tourists "doing" Africa. Pat Ayre, however, spoke to him, and when he

recognized Pat he became very cordial. He was a Mr. Leigh of New York, and was attached to Jimmy Clarke's expedition from the American Museum of Natural History. He told us that we would find Clarke's camp a few yards farther on. It was most interesting that Clarke, Barrett, Cudahy, and I, all members of the Explorers' Club, were here in Africa together. In addition, there was another member present, Mr. Lister Carlisle of New York, who was financing the expedition for the American Museum. Carlisle is the man I spoke of who had real drinking water.

All day long we had been looking for a good-maned lion without success; at four-thirty we said good-bye and started back to camp.

At ten minutes to six Pat stopped the car and took up his field glasses. We now appreciated, more than ever, the value of having an expert hunter like Pat Ayre. I doubt if any of us would have noticed, far off across the plain, the small brown dot which, when examined through the glasses, proved to be a large lion stalking congonis for his supper.

We pointed our car in his direction and flew across the country, narrowly missing many large

pig holes and crashing into one with a bang that flung us two feet into the air and then banged us back into our seats like lead. Nothing mattered, however, but the lion.

When we were about two hundred yards away the lion saw us and crouched in the long grass just showing his big ears.

Up we crept, nearer and nearer, until we were within about seventy yards. Then Cudahy shot. The lion was up like lightning, running and stumbling and roaring.

We stopped the car and approached on foot. Before the lion had a chance to charge Cudahy finished him off with another shot, and we bagged our second really large-maned lion. This one measured eight feet, eleven inches.

Usually we had been accompanied on our hunting trips by the large truckful of skimmers and porters, whose duty it was to take back to camp anything shot, but to-night we had neither truck nor porters. We had no alternative but to lift the animal bodily into the back seat of the Buick.

Anyone who has shot a lion knows that to lift one that has just been killed is by no means an easy or a pleasant job. In the first place, a lion is

heavy, and, in the second place, his mane is swarming with flying parasites and ticks.

I shall never forget that ride back into camp in the darkness, with a lion for a footstool. His head was propped over one door, and his tail hung over the other, while the rest of his body filled the back of the car level with the doors! Yet that night there seemed to be just as many lions as ever roaring around my tent!

This seems a good place to tell the story of Sim, though it was not until later, not, in fact, until after I came back to America, that I knew Sim.

I was very much surprised to find that prairie fires were common in Tanganyika. Although I was used to such fires in Canada, when we had to plow fire guards around our camps because of sudden grass fires, I had never thought of such a thing in connection with the African jungle. However, the fact remains that prairie fires are very common in Africa during the dry season.

One day, after such a fire had swept swiftly across the plain close to camp, driving before it in terror all kinds of animals, one of our men heard a piteous cry.

In a small depression he found a tiny newborn lion, about the size and appearance of a tabby kitten. The ground was still smoking, but, except that he was badly singed, the little fellow was unhurt.

By a stroke of luck, there happened to be an old nanny goat in camp with a little kid. The lion was given to the goat, and for weeks this strange trio lived in harmony. The kid had his meals on one side, young master lion took his on the other, and very soon Sim, as the lion was named, grew to be as big as his foster mother and showed signs of wanting something stronger than goat's milk for a diet.

He could easily have killed and eaten either his foster mother or his foster brother, but he did not dream of such ingratitude. Being unable to speak, he had to use some other way to make known his desire for meat, so he approached Dr. Barrett and gently removed the seat of his pants. This was not done in a savage mood. There was no roaring or scratching or biting.

Barrett immediately placed Sim on a meat diet. He loved it and thrived accordingly. He was not confined in any way, but roamed about camp as



An exhibit of the Milwaukee Public Museum

Sim in Africa, having a "sundowner" from "Horlick's."



An exhibit of the Milwaukee Public Museum

Sim in Milwaukee playing ball with Carveth Wells on the roof of the Museum.

he pleased. He used to delight in sitting beside Barrett on the front seat of the motor car on his long rides. He looked curiously at the other animals, but never once did he show the least desire to join his uncivilized relations. Sim was not a man-eater but a man-lover. Whenever he was deprived of human companionship he pined and became the most unhappy lion imaginable.

When the time came to return to America Sim was about six months old and the size of a large collie and much heavier. As the Milwaukee expedition planned to visit Paris and other European capitals before returning to America, the problem of Sim became acute! Finally, much to his disgust, he was crated and sent by rail to Mombasa with a letter of introduction to the captain of a freight steamer which was about to sail direct to New York. Upon reading the letter the captain, who was a true lover of animals, introduced Sim to the chief steward, who very kindly gave him a berth in his own cabin.

Freight steamers do not hurry, and, so with the prospect of a long sea voyage ahead, Sim settled down and won the love of the whole crew. He was given the run of the ship. The sea air seemed to

agree with him. He grew bigger than ever and rapidly began to lose his spots and look more like a real lion than a giant tabby cat.

Early in April he had his first sight of the Statue of Liberty. His friend, Barrett, who had beaten him to America by crossing on the *Homeric*, met him at the docks in New York. Sim's delight in the reunion far exceeded his astonishment at the New York skyline. Within a few days he had made himself at home in the taxidermy department of the Milwaukee Public Museum, where he watched with the greatest interest his old friend Perkins stuffing one of his relatives.

When I walked in upon him one day late in June, 1929, he tried to have a wrestling match with me, and I was glad to see how careful he was not to unsheathe his sharp claws. His great wet mouth did not improve the crease in my trousers, but otherwise he did me no harm.

His meals were being sent to him daily by the Milwaukee Zoo, where eventually he is to take up his permanent residence on his own terms—these being that he is permitted to see his old friends whenever he wishes and perhaps take an airing in a car on fine days.

July 30th.

I stayed in camp all day to-day, trying to catch up with my diary.

There has been thunder and lightning since morning but no rain. Trenches have been dug around our tents in case the rain that threatens comes to-night.

Barrett and Perkins have had an interesting experience with a rhino out in the plains. The animal evidently had never seen a car before, and like practically all the other animals, except monkeys and hyenas, it recognized no danger in the car and was merely curious. He trotted off after a while and hid behind a large bush. Perkins drove the car to the opposite side of the bush, and when the rhino walked out from one side it met the car traveling in the same direction on the other side. It stopped, turned, and ran back behind the bush, whereupon Perkins reversed the car, and when the rhino emerged once more it again met the car. Several times both car and rhino traveled backward and forward parallel, with the bush between them. Each time the unfortunate animal emerged he found the car waiting for it.

Finally it became annoyed and decided to charge.

On it came faster and faster until it seemed inevitable that the car would be overturned. Suddenly, about six feet from the car, the rhino stopped and slid along until its nose touched the mud guard! Then it gave a snort, turned tail, and ran for its life!

July 31st.

I got very little sleep last night on account of two groups of lions that persisted in ventriloquizing close to my tent.

I have no arms of any kind. My rifle is in bond with the customs at Nairobi. This leaves me entirely unarmed, except for a pocket flashlight!

Just before luncheon Barrett came to my tent carrying in his hand a little ball of prickles, an ordinary hedgehog—swarming with fleas.

We have two native hunters with us, a bird hunter and a butterfly and insect man.

Each evening they come into camp with their day's catches, and it is very interesting to see some of the things they bring.

The bird man not only shoots the birds, but skins them and stuffs them so beautifully that they will

go into the Museum's collection without further preparation. He takes great pride in his work, bringing in the birds, wrapped carefully in cotton wool, unwraps them one at a time and gloats over our exclamations of delight and surprise.

The butterfly man merely hands over his killing bottles filled with insects. One day he returned with a chameleon in one bottle and a bat in the other; both dead, of course. We explained that we wanted our small animals brought in alive, and that butterfly-killing bottles were not intended for asphyxiating reptiles and mammals!

At four o'clock I went out with Pat, Cudahy, and Goodrich to see what there was to see. We located a part of the migrating herds which Martin Johnson photographed. Within twelve miles of our camp the plains for miles were covered with animals. With the naked eye we could see millions of gnus; with our field glasses we could see that the whole country to the horizon was covered with animals, so close together that only rarely could we see grass between them. They were all slowly advancing in the same direction, grazing as they went.

We watched them until dark and then started

back to camp. On the way we passed three Masai boys and then their boma, where we saw father, mother, and sister.

All were dressed in brown skins and carried spears and arrows.

The next thing we saw were two large badgers, and the next thing we discovered was that we were lost completely!

Now the thrills began! Over and over again we tried to cross a deep donga, and each time we approached the trees they became alive with glowing eyes, which shone like electric lights when our headlights flashed upon them.

Green eyes we did not mind, they were only Tommies or other antelope; red eyes were not so bad either, just hyenas; but those deep yellow eyes were lions. Two big lions came right into the flood of light of our car and gave deep roars as they slunk off into the donga.

An hour passed and we were still in a maze of dongas. No two of us agreed as to the direction of the camp. Once we had to dig a pathway with axes and knives down the steep side of a donga for the car to cross.

Pat Ayre is one of the best of drivers, quite fear-

less and reliable. He thought nothing of descending a small precipice, into the bottom of a strange donga, and then climbing out again. We spent two hours like this, and all the time we were surrounded by curious glowing eyes. Just when we were beginning to talk of spending the night with them we emerged into an unexpected part of the plain and fortunately struck the trail back to camp.

That morning the hunters had shot an eland, which has the reputation of being the very finest meat in the world, even better than English beef-steak! And, surely, the steaks we had to-night were the tenderest and most delicious I ever ate.

August 1st, 1928.

To-day is my last day in this camp, for to-morrow, long before daylight, I am setting out with Goodrich in a truck for Nairobi, then on to Ruwenzori and the Mountains of the Moon.

I was up at 4:30 A. M., and lions were still roaring close to my camp. I am used to them now and prefer them to the hyenas.

A lion is an excellent ventriloquist, but he cannot change the direction of his roar—only the apparent distance. That is to say that a lion half a mile away

can make his roar sound two miles away, or a hundred yards. In this way he is able to terrify his prey, because they are never able to determine how close he may be.

At six o'clock we were huddled around a big fire, warming ourselves. A few minutes later we set out to take pictures of the gnus we saw last night.

As we were motoring along I saw my first cheetah. This animal is often confused with the leopard. It looks like a thin lion with the legs of a greyhound. It is never dangerous to man, except when wounded, and even then it rarely attacks. It is very swift and can run down most of the small antelopes and gazelles. For this reason it is often domesticated and used for hunting, especially in India.

This particular animal took no notice of us, and we left it alone because we did not wish to disturb the gnus which were in sight.

It is impossible to give a true idea of the number of gnus we saw. I got a fine picture of the herd stampeding.

After dinner to-night the porters and skinners started the famous hunting chant. We were still at our table when they appeared dancing and grimac-

ing. Some were beating tin cans; others carried lion skins and parts of the skeleton of a lion killed this afternoon.

Suddenly one of the biggest Negroes seized John Cudahy and lifted him onto his shoulders.

They carried him around the camp, into their own camp and kitchen, then to each of our tents, all the time shouting a weird song about the animals we were killing and hoped to kill!

This continued for ten minutes before they let Cudahy down.

The next instant Goodrich found himself on the shoulders of another Negro, and he also made a ten-minute round of the camp. Then they seized me, then Barrett, then Gromme, then Perkins, and last of all Pat Ayre himself.

The whole ceremony lasted over an hour and was certainly strenuous exercise for the men who did the carrying.

We are now all properly initiated big-game hunters!

VIII

August 2d.

It was 51° F. at six this morning when Goodrich and I struck our tents; and it felt colder. By seven o'clock we were ready, but it was actually ten o'clock before we got started, principally on account of the numerous skeletons which had to be packed.

We crossed the line at 4:15 P. M. Our progress had been slower than we expected, so we decided to keep on going in the darkness as long as possible, though, as a rule on safari, camp is pitched in time to get the tents ready before dark.

At six-forty-five, when it was practically pitch dark, we had the surprise of our lives when we came suddenly upon a charming young girl walking in the moonlight. She looked as if she had just left Broadway—silk stockings, fur coat, and everything.

Before she had spoken ten words I knew she was an Australian.

"What on earth are you doing out here all by yourself?" we asked. "Aren't you afraid of meeting a lion or something?"

"I've seen so many lions and things that I'm always afraid I shan't see something when I take a stroll," she replied.

Very soon we discovered that she was one of the girls we had seen in the large car at the Kilimefeza gold mine.

The rest of her party was in camp, about a quarter of a mile away. Her father was ill and her little brother was down with fever.

The whole family were out on a safari, principally for the benefit of the little boy aged nine years who had already shot two lions, a cheetah, and a leopard. I asked what kind of a rifle such a child could use, and was told that it was a .226!

What an adventure! Here was an ordinary Australian family, father, son, and two daughters, hunting lions without any white hunter, stranded with their food almost exhausted and with two people ill. We went back with the girl to their tent, but did not enter on account of the invalids. She gave us a letter to deliver to the nearest doctor, and we promised to urge him to come as quickly as possible.

As we continued our journey the moonlight made driving easy. About nine-thirty we came to a post

of the old East African Trading Company—a tumble-down shack with a corrugated iron roof. We stopped for gas, and a European came out to speak to us. He had an accent which I recognized as belonging to the Balkans. He was young and nice looking and clean—very unusual, out here. He told us his name was Fischer and begged us to stay with him for the night. He seemed perfectly delighted to have us, and before we could stop him he had opened various tins of fruit and other delicacies—sardines, cheese, fancy biscuits, figs, chocolates, crystallized fruits, Egyptian cigarettes, and milk.

After supper he showed us around his storehouse, which contained a strange assortment of trading supplies.

There were large sacks of native bicarbonate of soda, crystal lumps too heavy to lift, and bales of native tobacco that looked like chunks of mud. The Masai mix the tobacco with the bicarbonate and chew it.

In one corner were sacks of red earth which the Masai use to color their hair!

There were numbers of Standard Oil cans full of native honey, mixed up with young grubs and wax.

All of these things could easily be collected by the Masai themselves, but they prefer to let other natives do the collecting for them. They brew a strong beer out of the honey.

Stretched across the rafters was a python's skin about twenty feet long which Fischer had shot. Rows of barrels containing such things as copper and brass wire of all gauges, copper chains, native made, native-made lead earrings, sugar and corn meal, lined the walls on all sides.

He had several small barrels of beads of all sizes and colors, from Venice. The favorite colors at that time were red, white, blue, and khaki, but the traders have to be careful not to overstock, because the fashion in beads is constantly changing.

Similarly with blankets. He had bales of blankets, all of the special colors which happened to be in fashion. The Masai will never use blankets or beads that are like those used by other African tribes, and as the other tribes copy the styles of the Masai the Masai are constantly demanding new patterns.

The largest stock of cloth was "Americani," which is simply white calico, which the Masai dye by dipping it into a solution of the red earth.

The only things the Masai ever wash are their ornaments, which they polish with charcoal and water. Their bodies never receive any attention.

Yet the Masai are the gentlemen of Africa, very much as the Malays are the gentlemen of Asia. Work is the last thing a Masai ever wants. A Masai will not even carry his own matches! He likes to carry weapons, however, but the long-bladed spears of the Masai which made them so feared in battle were taken away by the British government, and now they are only permitted to carry very modest-looking spears for their own protection and for prodding their cattle. The main reason for taking away the long spears was that a young Masai warrior is not supposed to marry until he has killed a man.

One other thing a Masai does not mind carrying is a stick with which to beat his wives.

Recently, one of the chiefs turned up at this trading station with twelve of his wives, whom he loaded up with sixty pounds apiece. Donkeys are also used for loads, but a woman will often carry far heavier loads than a donkey.

The one ambition of every Masai boy is to become a warrior; males are divided into three classes:

boys, warriors, and married men. At certain intervals, said to be every seven years, the uncircumcised boys of the tribe are circumcised and then become warriors. Not so very long ago it was required of each boy that he kill a man before being recognized as a warrior. The new Masai warriors would still do so if they had the chance.

All the Masai except the warriors have no hair on their bodies. The women even pull out their eyelashes and eyebrows. Babies at birth are shaved completely. But as soon as a boy becomes a warrior he allows his hair to grow and retains his long hair until he marries, which is usually at the age of thirty, when he is considered no longer fit to be a warrior.

The warriors live with the unmarried girls. Usually, a new warrior selects from two to three little girls, about seven or eight years old, and with the parents' consent carries them off to the warriors' quarters and lives with them until the approach of womanhood. Then the girls return to their families. They are eligible for marriage to some ex-warrior.

Only the chief of the warriors is compelled to marry, and the chief often objects strenuously. To make him distinguishable from the other warriors

he is compelled to wear women's earrings and the dress of an old man for the rest of his life.

The Masai do not bury their dead, except their most important chiefs. The dead are carried out and left for the hyenas to devour.

Nor have they much regard for their sick people. When they expect a person to die they drive him out into the bush and let the hyenas have him while he is still alive. Sometimes, when a person dies unexpectedly, they tie the body to an ox and drive the animal off into the bush, where it soon flings off its unpleasant burden and returns to the boma.

Masai believe in one God, and his name is Mungu.

Masai are nomads and live entirely on their cattle, of which they own thousands. Their principal and practically only food is a mixture of warm blood and milk. The cattle are bled by placing a ligature around the neck until the veins stand out; then a tiny arrow from a special bow is fired into the vein and the blood is collected in a bowl, mixed with milk, and eaten. The wound in the neck quickly heals, and none of the cattle we saw showed signs of wounds, but they were all cruelly and fan-

tastically branded. In some cases the ears of the animals were cut to queer shapes, but not with any system such as is employed by the Lapps in cutting the ears of their reindeer.

A Masai can buy a wife for about five head of cattle, or thirty head of sheep, or for about fifteen dollars in cash. The men are no good at any kind of business, but the women are clever and do all the bargaining with the traders.

As soon as a Masai woman has her first baby she is compelled to wear upon her legs, from the knee downward, coils and coils of metal wire, and the wire is never removed, not even at death. Consequently, the calf of a Masai woman's leg is often deformed. They frequently wear the same kind of wire ornaments upon their arms, but this is not compulsory.

Men wear little bells on their ankles in order to warn of their approach.

They all knock out the two front teeth in the lower jaw as a preventative of starvation during lockjaw.

Both sexes pierce the lobes of their ears and then proceed to enlarge the holes until holes six inches in diameter are by no means unusual. I have ac-

tually seen a Masai put his head through the lobe of his ear.

The Masai show surprise or pleasure by spitting. If a Masai is pleased to meet you he does not say so, but spits on you. When a Masai shakes hands with you he shows his pleasure by first spitting in the palm of his hand. When a newborn baby is shown off to admiring relatives and friends they all spit on it.

Fischer gave me two fine Masai poisoned arrows. One was the ordinary type with a detachable poisoned head; the other had a metal barbed head. He showed me a special arrow which was sometimes thrown by hand and used for bird catching. Instead of poison, this had a lump of sticky wax on the head, and a cowry shell pressed in. The arrow is shot or thrown at a bird, and the wax sticks to the birds' feathers and causes it to fall.

The Masai are very fond of certain kinds of birds, the skins of which they use for hats.

I asked Fischer if he had ever seen the Masai use their poison arrows. He told me that once he saw a man shoot a zebra with one and that the animal ran only about fifty yards before falling dead. The poison is harmless if swallowed, but

dangerous if it gets into the blood stream. When the animal is dead the arrow is cut out and the meat is eaten. This is exactly the same custom that exists among the Semang of the Malay Peninsula, only in the case of the Malayan aborigines the weapon is a blowpipe and poisoned dart.

August 3d.

We left the trading post before daylight and arrived at Narok at six, where we were stopped by a policeman who asked us to sign the same paper which we had signed on entering the reserve.

By one o'clock we arrived at the outskirts of Nairobi, and a very civilized-looking native girl hailed our truck. She wanted to get into Nairobi before the market closed and sell a basket of potatoes. I told her to scramble on board, and at 2:30, sun time, we arrived in Nairobi with the girl on top of the skeletons.

Nairobi has daylight-saving time.

Nine-thirty saw me in bed, and my safari into the lion country of Tanganyika was at an end.

PART II

AFRICA'S EQUATORIAL ARCTIC

The Ruwenzori Mountains

I

THE best method of outfitting a safari is to consult one of the many firms in Nairobi who specialize in such matters and leave the matter entirely in their hands. In our case we simply told Safariland Ltd., which is the largest firm in Nairobi, that we required food and utensils for three men for a month. We explained that since we were not going lion hunting it would not be necessary to include champagne, liqueurs, or whisky but when we opened chop box number 5 we found a bottle of brandy and one of whisky. Everything was neatly packed in small wooden boxes fitted with a padlock and numbered. No box weighed more than fifty pounds, and each box had its own key. The convenience of this arrangement will be readily appreciated, because all we had to do was to consult the accompanying list and choose what we wanted for any particular meal.

A table of our complete equipment will be found in the Appendix.

We left Nairobi August 6th. Motorists might be

interested to know that we used a Chevrolet One-Ton Truck, Capitol Model, Serial No. 214714; engine No. 4095381, and that we got from seven to seventeen miles to a gallon, with gas about one dollar a gallon. The tires were Lee Puncture Proof. This truck and, in fact, all our cars were equipped with a screen in front of the radiator to catch the butterflies which sometimes collected on it more than an inch thick.

I took with me a native cook, a camera boy, and a personal boy. Goodrich had a gunbearer, but we indulged in no shooting of any kind.

One of the last things I did before we left was to take my temperature, pulse and respiration, and weight, so that I might compare them with my condition at higher altitudes.

Weight, 187 lbs. *Temperature*, Normal. *Pulse*, 98. *Respiration*, 14.

The first part of our journey was a climb of two thousand feet to the village of Limuru. At ten-thirty we reached the edge of the Kikuyu Escarpment and had that marvelous view of the Kedong Valley which is a part of the Great Rift Valley I have already described. We then rapidly descended and passed close to the great extinct vol-

cano Longonot, which has a perfect crater, both edges of which we could see from the road.

Soon after midday we skirted beautiful Lake Naivasha, a fresh-water lake, but without any indigenous fish. Roosevelt once tried to stock the lake with black bass, but the fish died on the road. Since then it has been successfully stocked with black bass from America. Excellent duck shooting is to be had here, commencing the day after Christmas and continuing for two or three months.

Farther along we came suddenly upon a swarm of locusts. Most of them were "hoppers" whose wings had not fully developed. They were marching in a solid mass, sometimes covering the roadway. When traveling, "hoppers" don't hop but walk rapidly like a great army, eating as they go.

These particular locusts were not the variety found so commonly in South Africa, but were the old-fashioned biblical locusts, and came from the north. Their presence in Kenya is causing considerable alarm, and locust experts are experimenting with various methods of destroying them.

Locusts have been known to stop trains out here by covering the rails so completely that the wheels of the engine skid. They have also been known to

invade private houses and eat the window curtains and other decorations.

The country around Lake Naivasha is beautiful and parklike. It was hard to believe that we were in Central Africa. The porters were wearing coats, and I was cool and comfortable. At one o'clock we came to the Bell Inn and found a charming little hotel with tables ready for lunch.

The next point of interest was a little settlement of corrugated iron houses called Gilgil.

The principal sight in Gilgil was an enormous sign advertising Ford automobiles. As a matter of fact, I saw more new model Fords in Central Africa than up to that time I had seen in America!

Half an hour after leaving Gilgil we descended an escarpment which led to another lovely lake, Elementeita.

The water in this lake is full of soda. It is said that no fish live in it; but there were plenty of hippopotamuses. These animals live in water, yet when they want a drink they have to leave the lake and find fresh water elsewhere! The scenery around Lake Elementeita is grand and strange looking, with numerous extinct volcanoes.

There were plenty of baboons in the neighborhood, but they did not come close.

The Elementeita district is causing quite a stir in museum circles on account of the discovery of an ancient skeleton and pottery and other objects that point to this part of the world as the cradle of modern man.

At half-past four we arrived at an important little town called Nakuru, situated on Lake Nakuru. My attention was drawn to the shores of the lake, but what I saw seemed so amazing that I did not make any remark until I was convinced that my eyes did not deceive me.

The lake is several miles long, and the shores as far as I could see were a beautiful pink color, some parts bright pink, others pale coral, while in some places the shore was perfectly white.

This was caused by millions of flamingoes and ibises standing in the water close to the land. We drove as close to the edge of the lake as the long rushes would allow—about a quarter of a mile.

The ground was dry, and with my motion-picture camera in my hand I walked through the rushes within a hundred feet of the birds before they

showed alarm. Even then they did not fly, but prudently walked a little farther out into the lake.

After a good deal of shouting and whistling I managed to frighten a few of them into flying. The alarm spread, until suddenly countless numbers of the birds rose into the air like a huge pink cloud.

It is impossible to do justice to this scene.

Jimmy Clarke had told me there were probably fifteen or twenty million of the birds, and I can believe it. The air from the surface of the lake to a great height overhead seemed to be one solid mass of bright pink.

This alone was worth the visit to Africa.

After I had taken my pictures we drove back into Nakuru and put up at the hotel; an excellent hotel, too, with hot and cold running water in the bedrooms, and a fine lounge with a good grand piano and an open fireplace.

We left Nakuru the following morning and passed through very fertile country with fields of maize as big as the biggest wheat fields I ever saw in America.

At nine o'clock we crossed the equator into the northern hemisphere, and at 9:30 arrived at a small town called Ravine. In all these tiny African towns

there is an Indian store where practically anything can be purchased from champagne and lobster to Keatings's insect powder.

At 11:30 we came to a signpost directing to the equator station. It was delightfully cool here. The elevation was 8,300.

By midday we began to feel anxious as to the state of the roads ahead of us. Kenya is not famous for good roads, and the one we were following was getting worse. There were lovely forests at this altitude, but an earth road in a forest after heavy rain is practically impassable, especially in Kenya.

At two o'clock it began to rain; then just as we were skidding gayly across the equator the rain turned to hail, and I noticed that the hailstones bounce off the equator just as they do anywhere else. These particular hailstones were about a quarter of an inch in diameter and looked like large tapioca.

Our car sank to the axles in mud. We came to a forced halt and thought we would have to camp out for the night, until a gang of Negroes came along who had evidently been working on the road and were going home.

By promising them baksheesh we managed to

get twenty of them to push us for a couple of miles to a better section of the road.

At 8,700 feet we came to patches of bamboo growing in the forest. The road was lined on both sides with bright blue forget-me-nots.

At 3:45 we came to a sawmill. Standing by the roadside was a pretty little white girl about eleven years old. She told me she had no other children for companions, but lived there with her parents. There was no school, and her only playmate was a small monkey.

At 4:30 we crossed the equator again at 9,400 elevation. The temperature was 62° F., the ground was covered with hailstones and forget-me-nots. The road dropped into a forest and then into a valley. Often we sank axle deep into the mud, but somehow managed to scramble out.

When darkness came we had to walk ahead of the car with our flashlights to make sure of the road. At last, at 8:20 P. M., in the pitch darkness, we came to the settlement of Kapsabet, where we erected our camp beds in an empty hut.

Next morning, just after we left the settlement, the road plunged into a dense forest, something like a jungle. At eight o'clock we came to a little

store and post office called Kaimosi, 247 miles from Nairobi, where we found a filling station and had our car filled with gas while we ate breakfast in the store. The Indian storekeeper told us that the rain started at two o'clock daily and lasted all afternoon and most of the night. This would continue until October. Apparently there is no definite rainy season for any large part of Africa. Each district seems to have distinct and regular seasons. For instance, Nairobi is now having a dry season, but Kaimosi is in the middle of a wet one!

The roads were frightful. We never really knew when we should slide off them and roll down into some ravine or swamp. And the bridges were as bad as the roads. We came to one that was so obviously dangerous that it was unnecessary to advertise the fact by means of a nicely painted signpost which had every appearance of being permanent, "Bridge Unsafe."

I was certainly relieved when the truck reached the other side, as I had visions of the termination of our expedition. Five or six little black boys, naked as Adam, watched us from the grass by the roadside, but when I beckoned to them to come and get some baksheesh they ran away, apparently ter-

rified. After a few moments they came back, and I threw a handful of pennies into the air, hoping they would scramble for them, but no, the biggest boy picked up all, while the others looked on. .

In Kakamega crowds of natives were assembled on a kind of village green, buying fresh meat. The local butcher had killed an old bull, and the meat was scattered all over the ground under a tree. Strangely enough, the biggest crowd was collected around a heap of entrails and offal. Most of the purchasers were women, and they carried small earthenware bowls, which they handed to the butcher, who filled them with small pieces of various working parts of the animal. The pieces were about the size of a walnut. I saw one woman receive the following: a piece of heart, lungs, liver, tripe, kidney and entrails, complete. I suppose she was going to make a kind of Irish stew. The greatest delicacy appeared to be the stomach, which was crammed full of bright green grass. People were buying slices of this, including the grass.

Promptly at 2:25 the rain arrived, as had been foretold by the shopkeeper at Kaimosi, but we kept splashing on through the big puddles, with the great drops against our windshield.

An hour later we came to the town of Busia and entered Uganda. The moment we crossed the border the roads became excellent.

At 4:40 P. M. we reached a small village where we decided to camp for the night. There was no suitable camping place, as the country was covered with high elephant grass, so we pitched our tent partly on the road and partly in the ditch and slept by the roadside.

There was a dense fog when we started off at six o'clock on the morning of August 9th, but the road was excellent and we were able to make good progress. The country was no longer wild, but thickly populated.

The native men (that is, the more or less civilized ones) of Kenya and Uganda wear a garment called a kanzu, which looks like a Mother Hubbard night-dress, reaching from the ankles to the neck. These kanzus are occasionally clean, and sometimes spotless; at least they would be spotless if it were not for the swarms of black flies that cover them like polka dots.

These people carry the most extraordinary things upon their heads. The top of the head is the usual depository for burdens, but it is also used as a con-

venient rest for almost anything—a bottle, an ax, a banana, a fish, or a box of matches.

Balancing must be unconscious, for I often saw groups of people laughing and talking together, all with the most ridiculous assortment of objects upon their heads.

At 7:45 I caught my first glimpse of Lake Victoria Nyanza, through a field of tapioca.

Not long after this we reached the town of Jinja.

The main street is spotless, and there are plenty of good native stores. The roads are bright red laterite. The residential part of the town is delightfully placed on the hilly banks of the lake. There is a good golf course, and the game is rendered particularly exciting, at least until quite recently it was, by the presence of meandering hippos.

Unfortunately, some time ago the hippos commenced attacking the small ferryboats which ply across the lake at a narrow spot opposite Jinja, and the government ordered them shot. Since then golf has lost much of its thrill.

We had breakfast at the Ibis Hotel and were surprised to be served real Devonshire cream. The position of the hotel is ideal. Someone could make

a fortune by converting it into a sanitarium or pleasure resort.

Within ten minutes of the hotel are the famous Rippon Falls, the source of the Nile. The falls are not remarkable, but the river below is beautiful.

Fish can easily be seen leaping up the rapids trying to ascend the falls. Great numbers of cormorants dive for them, while natives stand about on the rocks fishing with rods.

At Jinja cars are transported across the lake just above the Rippon Falls in a ramshackle old ferry worked by an oil engine. When we crossed we had for company another truck, about fifty blacks, and three push bikes.

The first thing the ferry does is to turn around, so that when we arrived at the opposite side we had to disembark backwards!

In addition to the mechanically driven ferry there are quite a number of primitive native canoes, paddled by about eight men apiece.

These compete with the big ferry and with each other. The races across the lake are quite exciting.

At eleven o'clock we reached the other side and continued on to Kampala over a first-class road. We passed several rubber estates, but the trees

looked unhealthy. They were covered with moss and lichens and very badly tapped—wounded would be a better word. Among the rubber trees were coffee bushes.

Heaven preserve me from coffee anywhere in the world but in America. I suppose the coffee itself is all right, but nobody seems to know how to make the drink. The coffee sold at the grocer's looks like brown earth, and when mixed with water produces a kind of black mud which tastes like burnt wood.

At three o'clock we arrived at Kampala, Uganda's chief town, and far more attractive and interesting than Nairobi.

The town is built on a series of hills, two of which are crowned by cathedrals, Catholic and Protestant respectively. Both cathedrals are very imposing and look strangely out of place in Central Africa.

Kampala is the place of residence of the king, or, as he is called locally, the Kabaka or paramount chief. He is a descendant of the two kings who persecuted the Christians so fiendishly. It is not so long since Christians were placed by the dozen on funeral pyres and burned alive. In the Catholic cathedral there is a magnificent altar in honor of the Kampala martyrs.

The British flag was first unfurled in Kampala by Sir Gerald Portal on April 1, 1893. At that time the natives were subject to terrible persecution by their rulers. There is a pond in Kampala where people were taken who had offended His Majesty. Their legs were broken, and they were left on the banks of the pond for the crocodiles.

There is a good golf course in Kampala, and a charming clubhouse containing one of the best ballrooms and miniature theaters in Africa. The clubhouse serves excellent "sundowners." This is probably the most important institution in Africa. The word is singular, but in practice there are usually many sundowners of various kinds. Among others, I found French Vermouth and gin delightful, or a gin and gingerbeer (not ginger ale), a wonderful refreshment after a round of golf; of course, a plain whisky soda makes a good sundowner, too. So far as I could see, the African resident likes a sunriser, an eleven o'clocker, an appetizer before lunch, a great many sundowners, and a few nightcaps.

It so happened that there was a dance at the club on the evening of our arrival. The ballroom was lovely. There were six pieces in the orchestra, three

couples dancing and twenty men looking on. The three ladies danced with the same three men all the time, so the rest of us had a wonderful time.

From Kampala we went forty miles in a taxi to Entebbe, the seat of the government of Uganda, to complete our arrangements for our climb up the mountains. During the first two minutes of the ride I counted no less than fifty-seven push bikes. After that I gave up counting. Kampala is the push-bike paradise. It was not unusual to see a bike with three bells, two lamps, six or seven red reflectors at the rear, and a small nickel-plated horn, besides other glittering attachments. Riders rarely, if ever, remain upon their bicycles when passed by a car containing Europeans, but dismount and stand by the roadside with their hats in their hands.

Pedestrians, hearing the approach of a car, become panic-stricken and jump into the ditch alongside the road or clamber up the bank or dart across the road like frightened chickens.

There are numerous bright red ant hills scattered over the countryside, sometimes in the middle of the road. The hills themselves are often seven or eight feet high. Over some of them was constructed a kind of bamboo framework.

These were traps. On rainy nights when the ants are expected to emerge the framework is covered with broad leaves, and then the ants (they are really termites) are collected and either eaten raw or fried. They are very fat and greatly prized as a delicacy—wings and all! If the ants do not come out of their own accord the ant collector sits beside the hill and imitates the noise of heavy rain by beating upon the hill with sticks.

The road from Kampala to Entebbe passes through pretty country. Beautiful scarlet flame trees grow along the way. Many of them were weighed down with the nests of weaver birds, but on this date no birds were in sight and all the nests were brown. Three weeks later, when I passed along the same road, the trees were full of yellow and black weaver birds, building new nests of bright green grass.

Entebbe is one of the loveliest spots imaginable—like a beautiful botanical garden, situated on the shores of a lake, with spotlessly clean houses scattered about among the trees.

The place is almost entirely populated by government officials, many of whom have lived there with their families for years. With such an environment,

it is not surprising to find that Entebbe has produced a special race of human beings, quite different from ordinary people. Seniority and prestige count for more than anything else. The most ordinary dinner parties are arranged with careful attention to the official position of one's guests. Everyone seems to be "acting" for somebody else, because if the governor happens to go into Kampala to have a toothache stopped somebody becomes acting governor, which automatically necessitates somebody else acting for somebody all the way down the line.

The amount of one's salary determines one's social status. Recently when the Duke and Duchess of York came to town, only those whose salary exceeded a certain amount were invited to the functions. This state of affairs is not peculiar to Entebbe; it used to be the same in the Malay States, and probably the worst place in the world for it is India.

In Entebbe I met the acting governor, who passed me on to the Survey Department. This department lent me a new tent and a set of instruments and maps for use on the mountain. Telegrams were sent to Fort Portal, requesting the

officials there to give me every possible assistance.

A snake bit a man in Entebbe while we were there, and he died in three minutes.

When I returned to Kampala I bought the rest of my outfit—heavy boots, sweaters, thick woolen vests, woolen stockings, trousers, blankets, etc., by the dozen.

Every porter who was to go up the mountain had to be completely outfitted with warm clothes; our boys had to be given expensive mackintoshes, puttees, and Balaclava helmets. I tried everywhere to buy some thick woolen gloves for myself, but failed. I never missed any gloves more than I did that pair.

The road by which we left Kampala was excellent, and the scenery charming but not tropical. In some places the butterflies were so thick that they fluttered into the car by the dozens. They were of all colors, but the most striking ones were black and green and must have measured about three inches across the wings.

When we arrived at Fort Portal we found, to our delight, the most comfortable and up-to-date hotel in Africa: the Mountains of the Moon Hotel, telegraphic address: "Romance."

The Ruwenzori Range can easily be seen from the hotel, but only at rare intervals. When we arrived there was a great bank of gray clouds that completely hid from view any sign of the mountains, but toward sunset the most northerly end of the range of foothills became visible for a few moments. None of the really high peaks could be seen, and I was told they had not been visible for weeks.

Long before I left America I took steps to secure the services of Mr. George Oliver, who is one of the few men in the world who have had intimate contact with the Bakonjo natives who live around the base of the mountains, and without whose assistance it is impossible to ascend the peaks. By the time we reached Fort Portal he had already begun making arrangements for our safari.

He told me I must have two thousand shillings in silver for paying wages. I got them from the district commissioner, Mr. Fisher. He gave them to me in an enormous sack that I could scarcely lift and explained that he had purposely placed the silver in a government sack marked with a broad arrow, because the sight of the arrow would frighten off thieves.

This money was to be left with the chief who

lived at our first camp at the base of the mountains. He would disburse it to anyone who presented him with a signed chit. This made it unnecessary to take money up the mountain and enabled us to pay off men whenever we liked, simply by handing them a slip of paper with the amount of wages marked upon it.

One of the things I had wanted for a long time was a copy of the Duke of the Abruzzi's book, *Ruvenzori*. The book had been unobtainable in London, but I was told here that there was a copy in the possession of the local *padre*, the reverend Mr. Russell. I called on Mr. Russell, who, to my delight, lent me a rather dilapidated but complete copy, which I carried with me up the Mobuku Valley, across the Scott Elliot Pass, and down the Bujuku. Having it with me enabled me to follow exactly in the footsteps of the Duke, to recognize all his old camps, and even to see from a group photograph in the book that I had some of the very men he had used twenty-two years ago! The route that I laid out purposely followed that of the Duke.

It is remarkable that so little is generally known about the Duke of the Abruzzi. He is one of the greatest living explorers, one of that small band of

truly great who never advertise. All his life he has been engaged in exploration. He was the first man to ascend Mount St. Elias in Alaska, as well as the first to climb the Ruwenzori Range in Africa. In 1899 he tried to reach the North Pole and attained the farthest north at that time, 239 miles from the Pole. He is still in his early fifties.

Everyone was greatly interested in our expedition, but we could find very little information of a definite character as to what we were likely to encounter in the way of weather.

From Mr. Russell I obtained the following notes on the climate of the Ruwenzori district.

January	Dry
February	Dry
March 15th	Rains begin
April	Rain
May	Very much rain
June 10th	Dry weather begins
July	Dry
August	Rains begin
September	Very much rain
October	Very much rain
November	Very much rain
December	Weather begins to dry.

It must be noted that the weather around the foot-hills of Ruwenzori is no indication of the weather on the peaks.

The district is visited by terrific thunderstorms, and thunder is heard on about 250 days in the year. Sometimes there are severe hailstorms that cut down banana trees.

Ours was the first expedition to attempt to climb so late in the month of August. Captain G. N. Humphreys made expeditions up Ruwenzori in 1926, the first in February and the second in July. In both cases the route followed was up the Bujuku Valley and down the Mobuku.

Captain Humphreys experienced a good deal of trouble with his porters because of the fact that a few months before four men had died of starvation and exposure with another expedition that was trying to cross the Scott Elliot Pass.

In his paper which he read before the Royal Geographical Society in 1927, relative to the danger of starvation on his own expedition, Captain Humphreys states:

"In the water a dead duiker was found, so far decomposed that flesh remained only on one leg, which was brought along for food. . . . Shortly

afterward a dead and much-swollen rat was found in the stream and added to the supplies."

The danger of starvation is always present on Ruwenzori. The mountains are not only uninhabited, they are devoid of the usual game such as antelopes and zebras, which are so largely used for food by safaris in other parts of Africa. Every bit of food both for the white men and the porters must be carried up the mountain. Should the supply give out anywhere near the summits there is the gravest danger of death from starvation, especially for the porters. They have splendid physique and are excellent workers when they are warm and plentifully supplied with food, but they are completely conquered by cold and hunger. Rather than make a fight for life they are apt to sit down wherever they may be and calmly announce that they now propose to die!

Famines occur in the Ruwenzori district with extraordinary regularity every ten years. 1928 happened to be a famine year. This meant difficulty in securing food for our porters.

But perhaps the greatest danger in mountain climbing in Africa is from pneumonia. One has constantly to try to keep warm and cool at the same

time. As for keeping dry, that is impossible. For three weeks we were either drenched with rain or with perspiration. We went to bed in damp clothes and waked in the morning, damp and cold, often in dense fog.

Martin Johnson told me that he would never attempt any more mountain climbing in Africa after his experience in attempting to climb Mount Kenya, when he and his wife contracted double pneumonia and were brought down on stretchers.

It is an extraordinary state of affairs when one has to guard against sunstroke and frostbite simultaneously!

The tents we had brought from Nairobi were too heavy for mountain work, but the government lent us a new survey tent with fly, and a Whymper tent. They also gave us two ice axes. We had to buy more blankets and sixteen pairs of canvas shoes for men whose feet would not fit the leather boots.

One item that I had forgotten to buy in Kampala was Epsom salts.

There is an abundant supply of water on the mountains, but it is full of fine mica. This causes it to sparkle delightfully, but it also gives bad pains

in the stomach; hence the Epsom salts, of which I bought twenty packets. This was not enough. We always strained the water through cheesecloth before we drank it, but a great deal of mica came through the meshes.

. The day before we left Fort Portal the snow-capped peaks of Ruwenzori were visible. It seemed a good omen, but they looked terribly far away and rugged and forbidding.

The compass bearing of the peaks, taken from the hotel, was 234 degrees.

■ This may be of interest to some future visitor to the hotel, because it will show him where to watch for the sudden glimpses of the Mountains of the Moon. A great many people visit the hotel in hope of seeing the peaks, but like the midnight sun at North Cape they are usually invisible.

II

ON OUR way to Kasunganyanza, which is the nearest place to the foothills of Ruwenzori, we had an interesting experience.

About fifteen miles out from Fort Portal we came to a small native house built on a hill about a quarter of a mile from the road. My camera boy, Ham, begged me to stop for a little while because the house was his home and he had not seen his father for fifteen years! I had hired Ham in Nairobi. He told me then that he was a native of Toro, but I had not expected to hear any more about it. However, in a few minutes he returned with his father, a gray-headed old man, black as ink, but very respectable looking, in a clean white kanzu. The old man was overcome with excitement at seeing his prodigal son. I shook hands with him, and he gave me his blessing for bringing his boy back to him and warned me that the mountain was very cold.

When we reached Kasunganyanza we found

several fenced-in huts which had been built for the accommodation of government officials on safari. Pitched inside the fence was a neat green tent which belonged to Fisher, the district commissioner, who was expected any minute on safari himself.

Quite a crowd of men and women and numerous children, including many babies in arms, were waiting outside the fence when we arrived; as soon as Fisher came they all entered the inclosure and squatted down on the grass before his tent. Fisher took his seat in front of them.

It appears that every man in Toro has to pay the following taxes.

Poll tax, ten shillings, to the Uganda government.
Land rent, six shillings, to the native government.
Ten shillings or 30 days work for the construction of roads and public works generally to the native government.

But any man who has five children all by the same wife is exempt from the poll tax until the eldest child is ten years old. Then the exemption ceases unless his wife has in the meantime presented him with another baby!

All these natives had come with their children to claim exemption; it was for Fisher to decide the ages of the children and whether the mothers were really the mothers!

When a safari encamps the local chief or his representative immediately sends in chickens, eggs, and bottles of milk. The "gifts" are paid for, however, at the rate of nine cents a dozen for the eggs and five cents apiece for the chickens. The milk is about three cents a bottle.

At daybreak Fisher decided to move camp.

He must have had about sixty porters, most of whom were only too glad of the work to help pay off their poll tax. I had a suspicion that there would be no porters left for us, and more than a suspicion that the fifteen that Oliver had promised to send from Ibanda would conveniently arrange to arrive in the evening instead of the morning, thus causing a twelve-hour delay. I couldn't afford to miss that day, so I asked Fisher to tell the local chief that if we required porters he was to supply them without question.

I got the chief to assemble fifteen men, and explained to them that we were expecting fifteen from Ibanda, and that if they were willing to start at

once I would pay them a shilling, no matter how short a distance they had to go before we met Oliver's porters. It was a gamble, for Oliver's men might arrive at any minute, but it appealed to them, and before ten o'clock our tent was down and all our baggage loaded on the heads of the men. Each man carried a bamboo pole about seven feet long, much in the same way the Lapps carried resting poles when they took my equipment across Lapland.

When all was ready they started off almost at a run, shouting and laughing like small boys on a picnic.

At eleven o'clock we came to the Ruimi River, which was in flood and too deep to cross at the usual ford. The river is about fifty feet wide and very swift. By going upstream a hundred yards we were able to cross to a small island, then to the other side, getting wet only up to the knees. We did not get thoroughly dry for the next three weeks. The heat here was terrific, and for miles we walked through elephant grass that closed in overhead like a tunnel.

The grass swept across our faces continually, and the same grass had swept across the faces of our



Carveth Wells in elephant grass.



fifteen porters, and all the other porters who had preceded us. Thoughts of horrible skin diseases were continually passing through my mind as I toiled along, streaming with perspiration, scratched mercilessly by that sharp grass. Besides, we had heard the night before we left Fort Portal a story which made us feel none too easy in our minds, when we met Captain Salmon, "Samaki," as he is called in Africa. Pat Ayre had given me a letter to him.

Samaki (Samaki is the Swahili word for fish) is one of the most famous elephant hunters in Africa; some say the most famous. He has shot two thousand elephants.

He was chosen to conduct the Duke and Duchess of York on safari in Uganda just as Pat Ayre had conducted them in Kenya. The Duchess of York calls him the bravest man she ever met.

I knew that he had recently come out of the hospital after a hand-to-hand encounter with an elephant. I asked him about it.

"Oh!" he said, "that was a bit exciting, but it wasn't very much, really." Here is his idea of "not very much."

A short time ago he was due for leave and, like

many government officials, had very little money saved up. He intended to fill his exchequer by shooting a few elephants and selling their tusks.

He himself is the government game ranger and, as such, is duty bound to shoot all elephants that damage property. On this occasion he obtained permission to shoot twenty elephants; having successfully shot eighteen, he set out to get two more. He and his gunbearer accordingly sallied forth early one morning and picked out two fine tusk-ers.

Having shot elephant number one, Samaki walked on past the dead animal and shot elephant number two. While he was examining the second elephant he was amazed to see the first get up and rush past him into the thick bush. Knowing that it must be badly wounded, he and the bearer started off in pursuit and followed the spoor of the wounded elephant until about five o'clock in the afternoon. Even then they could not see the elephant, but from the marks on the ground they were sure it was concealed in some tall elephant grass close by a main roadway. Elephant grass often grows twelve feet high and looks like thin bamboo, although it is practically solid and very strong, like cane.

The elephant had entered a kind of tunnel in the

grass; into the tunnel Samaki went. Suddenly, without any warning, he saw the huge animal charging down upon him. He fired one barrel of his rifle, but the elephant came on and seized him in its trunk.

Fortunately, the elephant did not seize the rifle, so, placing the muzzle against the animal's right eye, Samaki fired. The elephant had only one tusk, and that one happened to be on this side. Like a flash, the animal tore the rifle out of Samaki's hand and then, wrapping his trunk around his neck and shoulders, used Samaki like a sickle, sweeping him round and round, clearing a large open space in the tough grass.

While this was going on the gunbearer, an extremely brave man, picked up Samaki's gun and tried to hand it to him. The elephant immediately placed Samaki on the ground between its legs and like lightning struck the bearer with its trunk and dashed out his brains. Then, holding Samaki tight between its legs, the elephant began playing with the dead body of the bearer, rolling him over and over and smelling him with his trunk.

For a moment the animal relaxed his hold on Samaki, who managed to crawl a few feet away.

Just when he thought he was out of reach he was horrified to realize that the animal was merely playing with him, as a cat does with a mouse, because it grasped him by the ankle and gently dragged him back between its legs. The next time it relaxed its hold, Samaki, who by this time was streaming with blood, had the presence of mind to wriggle under the elephant's stomach. As soon as the animal missed him it began prodding the ground with its tusk, but since the tusk was on its blind side it kept missing Samaki, who crept still farther under its stomach. Then the elephant thrust its trunk between its front legs and began feeling about for Samaki. Finally, in disgust, it gave him a kick in the back with its hind leg, paralyzing him, and after giving him one last look disappeared into the grass, leaving him for dead.

Samaki was eventually found and taken to the hospital, where he recovered.

A little after midday we met five naked Bakonjos, each smoking a pipe and each carrying a roll of matting and a bundle of food.

This was the advance guard of Oliver's porters. Before they could recover from their astonish-

ment five of our own porters were paid off, and their loads transferred to the new men. After this our safari moved faster than ever, because our men were eager to be relieved of their loads by the next installment of Bakonjos.

About every half an hour this exchange of loads continued, and each time the argument became more heated as to who should be relieved first.

At three o'clock we had a hasty lunch, consisting of a can of pears and a stick of sugar cane. We seemed to have climbed to heaven, so I consulted my aneroid and found to my disgust that we were exactly one hundred feet lower than we had been at the start. *Very* encouraging.

I honestly believe that the walk from Kasunganyanza to Ibanda was as tiring as the whole climb across the Ruwenzori range.

At 3:45 we crossed the River Hima. The temperature of the water was 64° F.

I had been asked by the survey department and the doctor in Fort Portal to take the temperature of all rivers, because the government was thinking of stocking some of them with trout.

On and on we tramped, through groves of the black-trunked banana trees, which are used for

making beer, until we reached the first branch of the Mobuku River, a small stream running through a rocky gully and crossed by a log bridge about ten feet long.

We reached the main stream of the Mobuku River late in the afternoon.

Twenty-two years ago the same river had been forded by the Duke's safari. They stretched a rope across it and crossed by hanging onto it. The river was about sixty feet wide, a rushing mountain torrent, but, fortunately for us, not in flood.

Our porters waded across, but Goodrich and I were carried on the shoulders of a diminutive man, as strong as an ox.

We found our tent pitched in a clearing very much like the one at Kasunganyanza. The door of the tent faced up the Mobuku Valley; at last we were really at the foothills of the Ruwenzori Range.

A few minutes after our arrival came the chickens and eggs and milk and an official visit from the acting local chief. His official title was Sabawali, and he was representing the real chief or "Kimbugwe."

The Sabawali had sent messages throughout his district ordering the people to bring in food, and

for the rest of the day we were weighing and paying for the bundles of food and salt that kept arriving in various quantities. Some of the people came from miles away with supplies wrapped in banana leaves, and by nightfall it looked as if we would be in a position to start up the mountain in the morning.

Salt is of the greatest importance to these Bakonjos, as they eat it in considerably larger quantities than we do sugar! It is in the form of transparent cubical crystals about the size of a pea. Altogether we were able to buy seventy pounds of it, for which we paid about \$2.50.

We also bought twelve hundred pounds of millet flour for \$18, one live ram for \$10, and a billy goat for \$5.

The ram we called Buster and the goat Billy! They were very much alive, and it was sad to think that although they were destined to climb Ruwenzori they would never return.

Our native guide and headman was one of the Duke's men named Bamwanjala. He also had been Captain Humphreys' guide on his two expeditions. He was an elderly man with teeth sharpened to needle points, eternally smoking a soapstone pipe,

very intelligent, and willing to carry a load himself in emergencies. The success of our expedition was largely due to his faithful work and management of the porters.

Any expedition up Ruwenzori is dependent upon a good supply of mountaineer porters, and without the good offices of the Kimbugwe they were unobtainable. They refuse to go with anyone they do not know and trust, and I don't blame them, because they go at the risk of their lives, and do not forget that through the inexperience of the white men several of their number have died on previous attempts. The great problem of a safari through the Ruwenzori Range is the food supply of these porters. Until this is assured they will not ascend the mountain.

It is obvious that the larger the number of porters, the greater the difficulty in feeding them, because they have not only to carry all the food and equipment for the white men, but also for themselves.

Our porters were all Bakonjos, and all wore practically nothing except a piece of bark cloth around the loins. Each man carried slung around his neck

his "purse," which was the complete skin of some small animal about the size of a cat. The skin had been removed from the animal by pulling it over its head, so that it formed a bag with the fur outside. The two hind legs were joined together, making a loop which was strung over the porter's head, leaving the bag hanging down his back.

No two skins were alike; they were of various colors and markings.

In addition to the purse each man carried a peculiar musical instrument, which he could use either for amusing himself or for signaling, and a fire bundle.

The fire bundle was three feet long and about four inches in diameter, and looked like an enormous cigar made of banana leaves. A loop was attached to the bundle, which was worn over the shoulder. Inside this bundle was a lot of tinder and dry grass, which was ignited before the bundle was tied up. In order to make a fire one end of the bundle was opened and the contents blown into flame. The bundle was then closed. Fire can be carried in this way for days at a time in all weathers.

The musical instrument is a kind of flute and is

blown in the same way that a flute is blown. The player can make a whistling noise or a noise like a trumpet. The witch doctors use the same instrument for controlling the weather.

The witch doctor was one of the most important members of our group. Not one of the other natives would set foot on the mountain without him. They all had implicit confidence in him and willingly paid a portion of their wages to him regularly. In cases where white men have refused to pay for the services of a witch doctor the porters have either refused to go on safari or they have engaged the services of the witch doctor themselves and have smuggled him into the safari incognito.

We gave each of our porters, at once, a blanket and a supply of food and salt. We did not give out warm clothes or boots because only those who consent to go up on the snows are to have these luxuries.

We sent five men ahead to clear the trail, which had not been used for two years. They were to keep ahead of us all the way.

Oliver, Goodrich, and I then paid an official call on the Sabawali at his house, after which we strolled down to the Mobuku River, where we

found a girl fetching water in a large gourd. She was quite good looking, but her appearance was ruined by the filthy rags she was wearing.

She told us that her name was Dorothea and that she was a Roman Catholic. Being a Christian, she had been told to wear clothes, but like all the Christian savages I ever knew she never thought of washing the clothes or of renewing them.

When we got back to camp an old native asked me for medicine. He had fallen while crossing the Mobuku River and had torn a piece of skin off his leg about the size of a plate! I patched him up with boracic lint and bandages, and he went away quite happy. I knew he would never come back to have the wound dressed, but would wear the same bandages until they or his leg dropped off.

The next thing we did was to test our Primus stoves, and then we realized the value of "Meta" solid fuel. Our bottle of methylated spirits was empty. The cork had come out. But "Meta" ignited the stoves splendidly. Anyone going up Ruwenzori should have at least two Primus stoves of the best quality. Ours were invaluable to us.

On the day of our departure our camp swarmed with a crowd of natives who had come to watch

us off. Many of them could remember the expedition of the Duke, who started from this same camp. Money was no object to him, however, and our guide told us that silver was handed out by the handful.

All the loads had been carefully weighed the day before, so that none exceeded sixty pounds. Forty-seven men had been carefully selected, and their loads were all neatly laid out on a long line, each man standing behind his own load.

At a quarter to eleven, in pouring rain, we set out, with Billy and Buster in the lead.

At the last moment we discovered that the chickens had been forgotten, so the wretched birds were tied individually to the tops of various loads like so many bundles of rags, and off the porters went with the chickens squawking, while the men yelled at the top of their voices and gave many toots upon their Bakonjo flutes.

Our personal boy was left behind with instructions to wait a week and then go up the Bujuku Valley with food and fresh porters to meet us after we had crossed the Scott Elliot Pass.

The first part of the way led through the settlement of Ibanda, where many of our porters lived,



An exhibit of the Milwaukee Public Museum
A neat African village.



“Buster” and “Billy” ready to go up the mountain.

and as they passed their homes their wives and families greeted us with shouts of "Jambo!" which is a kind of good-day, and the men gave shrill blasts upon their flutes in answer.

The path soon led through tall elephant grass. It sloped appreciably and, on account of the thunder-storm, water was rushing down it in a small torrent. There were beautiful wild flowers on every side, and a smell of damp soil, like a hothouse. On our right we could hear the Mobuku River roaring down the valley.

At 12:15 we came out into the open on the side of the mountain and got a marvelous view of the Mobuku Valley. The river was full of large boulders, and the rocks on the side of the valley showed unmistakable marks of ancient glaciers.

The higher we climbed the more rank became the vegetation. Presently the grass closed in over our heads and we walked through a tunnel, sinking every now and then up to our knees in black mud.

Occasionally the path opened into a native clearing on the mountain side, planted with beans and corn. The clearings were about two or three acres in extent. Working in the garden nearly always were two or three more or less naked women with

babies tied to their backs, while their husbands sat lazily on the rocks watching them. Usually in each plot of ground there was a neatly made grass hut, on the porch of which were huddled six to a dozen women and children; some quite naked, others almost.

They shouted greetings to our men, and a "Jambo Bwana" to us.

Many of them wore large metal crosses around their necks, denoting they were converts.

Suddenly the gradual slope up which we had been making our way changed to a steep rocky path not more than a foot wide. In places we had to hang on with our hands and pull ourselves up.

At noon it was hot, and the path became steeper and muddier. And just when we were congratulating ourselves on having climbed a thousand feet the path dropped abruptly into a swamp. This we crossed by jumping from stone to stone, or log to log, splashing and sliding, and sinking up to our knees in the black slime. The whole journey was a continuous switchback up and down, the ups being about twelve thousand feet more than the downs.'

Camp Mihunga at last came into view, perched up on a small ledge about five hundred feet above

us, with a high ridge behind it covered with forest. The Duke's expedition must have converted Mihunga into quite a village, to judge from his photograph of it, but there were only three huts there when we arrived.

The weather was perfect at Mihunga, but below us we could hear rumbling thunder. This and the roar of the Mobuku River six hundred feet below us drowned all other sounds until our ears grew accustomed to the place. Then far away across the valley at about the same height we were we could hear the cries of some children herding their goats and an occasional note from a flute. This was the limit of any settlement. Above us was virgin forest and the unknown.

III

August 19th.

It was a wonderful sunny morning when we left Mihunga, having sent our porters ahead to the next camp.

We had a steep climb to the top of a ridge about five hundred feet above Mihunga, hanging onto the vines and clinging to rocks, over a trail not more than a foot wide. The top of the ridge was covered with forest and lovely ferns. Great white clouds were rolling up the valley toward us, and the peaks of the mountains were shrouded with mist.

Alas! having now climbed up two thousand three hundred feet, we had to climb down into a deep ravine, about five hundred feet. At the bottom we crossed the river Chowha, which rushed through a magnificent forest with orchid-covered trees. Soon we crossed the Mahoma River where we stopped and had lunch. It was interesting to observe that the water was getting colder and colder as we ascended the mountain. Here we had a good rest



These lobelias are soft, not prickly, and so full of water that you are drenched when you cut one down.



Camp Nyinabitaba.

because ahead of us was a climb of two thousand feet to our next camp, Nyinabitaba, which in the Duke's book is called Nakitawa. The forest was dense, and the ferns were ten feet high.

At 7,300 feet we came to a rock covered with small flowers that had every appearance of ordinary violets, except that they were growing on a creeper; I shall call them Ruwenzori violets. Here also were some of the finest bamboos. At 7,600 we reached a belt of small coniferous trees, but the bamboo had disappeared. At one o'clock it began to rain, but this was soon stopped by the witch doctor, and we began a strenuous scramble up the razor-back ridge that runs to camp Nyinabitaba. On both sides of the patch there was a precipice; in many places the track was less than a foot wide, but the grass and trees on both sides grew so high that we were not obliged to be conscious of the drop on either side of us.

On our right, hundreds of feet below, the Mobuku River was roaring down like thunder. It has evidently cut its way down into an immense moraine, because there are round glacial boulders sticking out of the side of the valley.

Although the sun was shining brightly I could

hear no insect life, and only one bird. Yet from the scenery I should have expected to hear a steady hum of insects.

At one spot we passed two pretty spirit shrines, built by a Bakonjo hunter. They looked like bird houses, and were not more than a foot high and a foot wide, carefully roofed in, but with the fronts open. Inside each house were a few pieces of banana; outside, impaled upon a small stick, were the banana skins.

Bamwanjala explained that these little houses were always built by hyrax hunters before they commenced hunting, as an offering to the spirits. When they return from a successful hunt they revisit the shrines and place inside them a few hairs plucked from each of the hyrax skins as a thank offering.

All day we have seen fresh elephant tracks, but no animals.

We arrived at Nyinabitaba camp about the middle of the afternoon and found our cook, the chickens, and about ten of our porters huddled together underneath the overhanging ledge of a rock, mentioned in the Duke's book as a "huge boulder of gneiss." They all looked as if the end of

tentedly, but the chickens were standing about, drooping.

The roar of the torrents below us continued; everything was dripping, and the ground was saturated with water. There were, I thanked heaven, no leeches! Such a camp site as this in the Malay jungle would have been uninhabitable on account of them.

Here, except for one solitary bird, there seemed to be no life. No insects humming, no ants, no woodpeckers, no distant calls of the Argus pheasant; nothing but the roar of the waterfalls and the monotonous drip, drip, drip of moisture from the trees.

As I write this I am sitting on a wooden box with Oliver and Goodrich sitting on sacks. Between us is another box for a table, and upon it is a pot of tea, a can of milk, and some sugar. We are all damp, and expect to be damper. Yet with water all around us, on account of our present position, perched high up on a razor-back ridge, we have to bring our drinking water up more than six hundred feet.

Bamwanjala has just bowed himself to the

ground before me and requested that we use as little as possible!

A few yards off our porters are standing in a ring around the fire, smoking their pipes and warming themselves.

The first thing I do upon arrival in any camp is to hoist the Explorers' Club flag, unpack and set up the thermometers, and determine the elevation of the camp by means of the boiling point of water. To-day the flag is hanging motionless, and upon the tip of every little hair of bunting there is a silvery ball of moisture.

At four o'clock the porters gathered around to receive their rations of salt and millet flour. Each man was given three quarters of a pound of salt crystals and two pounds of flour. Some of them immediately placed lumps of salt in their mouths and sucked them greedily like candy.

What a diet! They mix flour with hot water and make a dough. Then they take a handful of dough and roll it into a ball, stick one finger into the dough and fill the hole with salt, close up the hole, and pop the ball into their mouths.

It will be remembered that at Ibanda Camp we

gave each porter a warm blanket. At the same time we promised that the twenty volunteers who agreed to accompany us above the snow line would be provided with boots, sweaters, stockings, fleeced-lined woolen underwear, all of which would become their own property.

We are only up about nine thousand feet, but the men are clamoring for more clothes. The temperature is only 55° F. and we are beginning to wonder what will happen when it begins to freeze every night.

We cannot hand out the clothes now, for we have outfits for only twenty men, and if we give the clothes to some and not to others there will probably be mutiny. We reminded them that we promised to give out the warm clothes at the snow line.

The porters called upon the witch doctor to warm up the atmosphere, which he proceeded to do by blowing long blasts upon his flute.

Near sundown the weather cleared, and our spirits rose.

By six o'clock it was dark, and the moon came out. The temperature dropped to 48° and we put on our sweaters and overcoats.

Supper was served on boxes around a blazing

log fire, and what a supper! Chicken stew—our miserable chickens were rapidly diminishing in number—rice, delicious young beans, and for dessert, custard pudding!

Each evening we read in the Duke's book about the next day's journey. From the description to-night it looks as if to-morrow's was going to be anything but pleasant.

I have been inspecting my boots and find that all the screw-in hobnails have fallen out of one boot, and only three are left on the other. Fortunately, I have a large supply of ordinary inch steel screws, which I can screw into the boots, filing off the heads, and leaving about quarter of an inch protruding.

We can see our breath like steam, and the temperature has dropped to 45° .

One man has been assigned to look after the fire all night, and we are snuggling into our sleeping bags, wondering how much colder Africa is going to be.

August 20th, 1928.

We left Nyinabitaba after a good breakfast, and continued up the ridge. After ten minutes we came

to a branch in the track leading to the Bujuku Valley, by which we hope to return.

Every few minutes we passed an old leopard trap, and once we saw a new one, with a little spirit house, close by, containing an egg for an offering.

Leopards are common on Ruwenzori up to and beyond the snows. The species of leopard found in the region of Kaijongolo is unlike any other. Its fur is longer and it is differently marked from the ordinary leopard. They live upon a small antelope called a Mountain Duiker, which I understand has never been collected by any museum. We saw none of the deer alive, but I brought back some of the skulls and gave them to the American Museum of Natural History, New York.

The British Museum sent an expedition to Ruwenzori in 1906 to study the flora and fauna. Their observations regarding leopards are as follows:

“Leopards wander up to the snow line, but it is difficult to ascertain whether any live permanently high up on the mountains above 10,000 feet. Certain it is that under one of the numerous overhanging ledges of rock at 12,000 feet there was a dry shelter in which a leopard had evidently reared

a litter of cubs, but there is still the question of food. Even supposing that small antelopes go up to 12,000 feet, though it is unlikely that they are found above 10,000 feet, there would hardly be sufficient numbers to attract leopards. Leopards living high up might, of course, become expert in the art of catching hyrax, and might then acquire a liking for their flesh, and this seems their only possible means of subsistence."

At 8:30 we reached a summit of 8,950, and then descended sharply, slipping and stumbling until we reached the Bujuku Valley. This valley was discovered by the Duke.

For the next two hours the trail led across a swamp filled with dead trees and boulders. Our porters scrambled from log to boulder like cats, all the while balancing upon their heads their sixty-pound loads.

At 10:30 we came again to the Mobuku River, which at this point was about eighty feet wide and three or four feet deep, full of boulders, around and over which the water was rushing swiftly. Both banks of the river were covered with Ruwenzori violets and white everlasting flowers. Bamboo was

growing among the trees, which were all covered with a gray moss much like the gray Spanish moss which grows in the southern part of the United States.

We found that the driest place to rest and take lunch was on the rocks in the river bed. The trouble with most of the inviting spots on the mountains was that they were saturated with water; you might as well have sat on a sponge.

At 2 P. M. we arrived at a huge precipice of mica schist, stratified at an angle of about sixty degrees. The precipice was overhanging a narrow ledge, from the top of which water was dripping continuously in a bridal veil of silver.

The overhang of the precipice was sufficient to cause the water to fall clear of the narrow ledge, which was therefore quite dry and provided just enough room for our tent. This is the famous Kichuchu camp of the Duke. It is at an elevation of 9,880 feet.

It is now quarter of five, and I am writing this at the door of my tent. It is thundering, and a heavy rain is falling. The rain has now turned to hail, but thanks to the overhanging precipice our

tent is dry. Water is pouring in a solid sheet from the top of the precipice, missing the tent by six inches.

Billy and Buster are tethered beside the fire, and keep turning around, first warming one side and then the other. They are no longer interested in food, but are trying to get themselves dry. They are much thinner than when they started; we can see our supply of fresh food dwindling before our eyes. We have only two chickens left and they keep on trying to enter my tent and go to roost for the night.

Oliver is making paint by mixing soot with machine oil.

We forgot to bring a pot of paint with which to leave records on the rocks. Yesterday, much to the delight of the porters, I scratched a large white elephant upon a rock, between Mihunga and Nyinabitaba.

We reached Kichuchu with a few of the best porters, and have been waiting ever since for the rest to arrive. Forty are missing, and it is now nearly seven o'clock and quite dark. Oliver tells me that they have probably found a cave and are sleeping in it for the night.

Supper to-night consisted of roast chicken,

onions, and rice pudding. We are now sitting on the ends of our camp beds, smoking and listening to the thunder. In front of each of us is a wooden box with the remains of dessert upon it! A hurricane lamp is upon another box facing us, and beyond that upon another box is Oliver.

Within six feet of us is a log fire. Farther down the ledge is another fire, partly sheltered by the ledge, around which are the cook and the porters, all looking very forlorn.

Vivid flashes of lightning illuminate the page as I write, and the thunder shakes our ledge.

A more dismal outlook cannot be imagined. Beyond our camp fire there is nothing but rain, mist, and the monotonous noise of water dripping.

We are walled in on three sides by precipices; behind us lies the mud-filled valley of the Mobuku River. The only way forward is by a narrow ledge of rock that runs up the side of the precipice at the same angle as the strata. It is so steep that it can be negotiated only by means of crude wooden ladders, the remains of which are still to be seen. Some of our men are to repair them to-morrow.

The temperature is 45° and our breath looks like steam.

IV

ABOUT eleven o'clock in the morning on August 21st we reached a great level valley above Kichuchu, and came to a kind of weird fairyland in which absolute silence prevailed.

The trees were covered with masses of golden and brown and green moss, like huge feather pillows strapped around the trunks.

I thought I saw something moving in the distance, but the colors blended so perfectly with the surroundings that I could not be certain until the objects came close enough for us to see that they were the five chocolate-colored Bakonjo natives whom we had sent up the mountain a week before to clear a track for us.

They were returning to the base of the mountain where they were to meet the rest of our men. After that they were to go up the Bujuku Valley as far as they could with supplies of food and firewood. They had a pretty tough time and I doubted if they would ever make the ascent again, but they

faithfully kept their bargain. Had they not done so, it is quite possible that none of us would have made the return trip in safety.

The most dangerous part of our journey up Ruwenzori came shortly after we left Kichuchu, when we reached the fallen forest. For miles there is a huge tangle of fallen tree trunks, probably hundreds of years old, and now covered with bright green moss, and extremely slippery. Here and there yawned holes too deep for us to see the bottom. They were lined with jagged pieces of wood as sharp as spear points and so hard that they turn the edge of an ax. Some of the trees were still standing and alive, but were so covered with moss as to appear dead.

Progress was slow and terribly fatiguing. Our advance was punctuated with sharp cries of pain from the porters. Over and over they stumbled and fell. But every time they were able to regain their feet without losing their precious loads.

Let me quote here from the report of the British Museum describing the so-called Fallen Forest.

“The Tree Heath and Moss Zone on Ruwenzori stretches from 10,000 feet to 12,500 feet. In this

zone may be seen perhaps the most weird scenery of all. The trunks and branches of the heath-trees (heather!), wrapped in their thick masses of moss, on which grow luxuriant ferns, present all manner of curious and grotesque forms. The trees themselves (heather!) are from thirty to forty feet high and lean at all angles, as if weighed down by their burdens of wet moss. Generations of dead ancestors, lying across one another upon the ground and covered over with a soft treacherous layer of moss a foot or more in depth, make the walking both difficult and dangerous. One may easily take a false step into a deep hole between two trunks; and these fallen trees are *not* soft rotten wood, but are well preserved and hard as steel, with many dangerous sharp points where the boughs have been broken off. It is truly wonderful how the Bakonjo porters carry the loads over these slippery tree-trunks, with intervening morasses of black mud several feet in depth, for they never drop a load and get along at a good pace. . . . The moss too is of many shades of color—green, brown, yellow, pink, sometimes almost white, and many shades of red, all blending together into a perfectly harmonious and warm tint of reddish brown. Long wisps of gray

and straw-colored lichen, swinging gently in the breeze, give a look of great antiquity to the scene."

At midday, after another terrific scramble over fallen logs more slippery than ice, we again reached the Mobuku River. Here it was about forty feet wide, and the water was clear but dark brown in color.

By 1:15 we had reached an elevation of 11,250 feet. I was so tired that I flopped down upon a large green spongy piece of moss, on the edge of a sheer drop of about eight hundred feet, took out my notebook and rested as I wrote.

A hailstorm interrupted me.

So we went on, but unfortunately down now instead of up, until we came to the second level valley through which the Mobuku River runs. Our destination was Kaijongolo, but our progress was so slow that we decided to stop that night at an intermediate camp named Bwamba.

The whole of this valley was covered with moss two or three feet deep and saturated with water. The trees had lost their shapes completely and were covered with great knobs and balls of golden brown moss. No leaves were in sight except at the



Bwamba Falls.

very tips of the branches, and even from these hung great streamers of gray moss.

The ground was thickly carpeted with silver-gray everlasting flowers with white and yellow blossoms.

Dotted about here and there were giant lobelias, monster groundsel trees and heather, fifty feet high.

The last time I remembered lobelias was planting them in my garden as a border a few inches high; as for the groundsel, I had bought it for a penny a bunch to feed the canaries; as for the heather, I had thought six inches a respectable height for it in Scotland. This was a paradise for Scotchmen and canaries!

Our camp for the night was under a waterfall which shot horizontally out of the side of the mountain as if from some giant gargyle.

This was Bwamba camp. Last night at Kichuchu the rain dripped in a silvery curtain just beyond our tent; here the waterfall shot clean over it. The altitude of Bwamba is 11,450, and at five o'clock in the afternoon the temperature was 47°. My pulse is 105° against 98° at Nairobi, my respiration 17 against 14. These observations were taken after we had rested.

Above us we could see through the waterfall the

eternal snows of Mount Baker, 16,000 feet high. Right opposite our tent, towering up fifteen thousand feet, is Mount Cagni, with freshly fallen snow upon its summit. In the valley, between us and Cagni, rushes the Mobuku River, fed by the Bwamba waterfall. From the door of my tent to the edge of the precipice it is just three feet! Level with my eyes, within twenty feet, are the tops of giant weeds laden with moss. The moss converts the simplest object into a grotesque monster. No wonder the Bakonjos dread these valleys and venture into them only in search of hyraxes and leopards.

When Billy and Buster arrived they were cold and shivering; the porters followed them in twos and threes, looking just as miserable. They flung down their loads, untied their fire bundles, and started a fire around which they huddled, still shivering. It was evident that something had to be done to revive them, and so poor Billy, who was sneezing by the fire, was sentenced to death and a ration of fresh meat given to each man. Our two remaining chickens perched on the ends of the logs in the fire and stood warming themselves by the small flames which actually surrounded them!

The temperature at Bwamba dropped nearly

to freezing during the night, but I slept comfortably with a hot-water bottle at my feet!

August 22d.

We were up at seven-thirty and the temperature was only four degrees above freezing! Not a leaf moved, but our waterfall still thundered away. It had now become increasingly difficult to keep dry because our spare clothes and our bedding were thoroughly damp. A fine mist had settled upon everything, and the higher we climbed the more the comforts of life decreased. Firewood was almost impossible to find. To keep warm we all set to building a stone retaining wall with large boulders, and then filling in behind with earth that we scraped from the highest part of the ledge to the lowest, thus increasing the size of the ledge for future explorers. It is an unwritten law on Ruwenzori that each expedition must improve the camps and leave a supply of dry firewood, even though it may be many years before another party ventures up the mountain.

Before leaving Bwamba we wrote our names on a sheet of paper which we wrapped in a dry banana leaf and put under a rock in a niche, together with

a message asking the next comer to carry on with the good work.

The witch doctor seemed to have lost his power. In spite of his efforts, there was a dense fog and heavy rain when we started for Kaijongolo at eleven o'clock.

Once again the same old scramble over fallen logs commenced. To protect my hands I tried wearing leather gloves, but they quickly became sodden and slippery, worse than nothing. I then tried wearing coarse cotton gloves like those that sell in America for fifteen cents a pair and found them excellent, because they did not become slippery and could easily be dried out at night.

It was on this day at twelve o'clock exactly, with the sun directly overhead, that I stood on the equator with my feet in snow. We were far above the ordinary tree line but we were surrounded by tropical vegetation fifty feet high. I took a mouthful of equatorial snow, and it tasted just like ours at home.

The elevation was 11,800 and the snow was melting.

It was curious to notice that the higher we climbed the more gigantic the vegetation grew.

There were no longer any trees, but the weeds were as large as trees.

At one o'clock we reached Kaijongolo. Here we camped on a moss-covered platform which had been built in 1906 by the Abruzzi party. On the face of a rock close by, painted in red letters a foot high, were the words,

Expedition
H. R. H., the 7th
6
D of A
13.7.
1906.

When the Duke first arrived he thought such a place would be impossible for a camp, but by cutting down the groundsel and rolling away rocks and building platforms, which are still standing, he managed to establish one. But, even so, it is stated in his book that "by no effort was it possible so to transform this inconvenient spot as to create an even tolerable camp."

We agreed with him. In spite of the comforts we had brought with us we were cold and shivering. Unlike the ledges at Kichuchu and Bwamba, the

ledge at Kaijongolo was far from dry. The temperature was just above freezing and, with a steady downpour of rain and sleet, water was continually dripping upon us. To make a fire was almost impossible, and the cook's persistent efforts resulted in dense acrid smoke.

It took a lot of persuasion to get the porters to unpack and prepare camp. There was no room to pitch the tent, so we removed the fly and, by tying the ropes to rocks, managed to erect a shelter large enough to cover our three camp beds placed side by side. For warmth we kept two hurricane lamps and a Primus stove burning, but their heat left much to the imagination. As soon as our shelter was ready we changed from our sodden clothes into some that were merely wet and then, blessing the man who invented the Primus, had a hot meal.

We boiled a good supply of coffee and served coffee and sugar to the whole crowd. Then we sent for Bamwanjala and told him that the time had come to select the twenty men who were willing to accompany us above the snow line.

The others were to go back down the mountain and return up the Bujukü Valley with food and firewood, and wait for us when we descended.

The prospect of an immediate supply of complete outfits of warm clothing made the whole lot volunteer for the snows. We picked out the men whose feet were in the best condition and gave each man:

- One fleece-lined woolen vest
- One woolen sweater
- One pair of thick woolen stockings
- One pair of trousers
- One pair of heavy boots or canvas shoes
(whichever they wished)

Then began the fun of trying on the boots! This took three hours and much grunting, laughter, and slitting open the sides to make room for their toes. While this was going on I opened a large packet of cigarettes and gave each man one, the first he had ever smoked. They grow their own tobacco and smoke pipes, but cigarettes were a new experience. A terrific chorus of violent coughing followed. They simply could not stand it, yet they were accustomed to smoking the strongest possible tobacco in their pipes, and I often saw a man tear off a piece of his shirt and smoke that.

When the boots were all adjusted they put on

their new clothes, and the results were astonishing. Off came their filthy rags—animal skins, bark cloth, pieces of ancient blanket, dilapidated vests presented by some missionary twenty years before—until they all stood shivering in their G strings.

What to do next was the question. Each strange garment was carefully inspected, and just as a Pullman porter invariably places a suitcase upside down, so did these naked Bakonjos insist upon wearing everything backward and inside out. Arms were thrust through trouser legs and legs through arms. Stockings were a complete mystery. After we got them all dressed they immediately put back on all their old clothes outside the new!

It is so cold that I have not undressed for bed, but over my other clothes have put on my flannel pajamas, an extra sweater, and my Balaclava helmet. The latter is made of pure wool and covers the head and neck, with a hole over the face to facilitate breathing. This is the first time I have used mine, but the cook has been wearing his day and night ever since we left Fort Portal.

Our Primus stoves are roaring cheerfully, but the temperature at my bedside is 32° F. Freezing! Poor old Buster looked so forlorn this afternoon



Oliver standing by giant groundsel in blossom, with a piece of parsley, nine feet high, beside it.

that it was decided to kill him before he died voluntarily.

August 23d.

What a night! It froze hard and is still freezing. There is a dense fog, but the rain has stopped. Everybody is cold and wet. I have just found several spiders among my clothing, which at least proves that it is not correct to say that there is no life up here! Yesterday at Bwamba I noticed a bird with brown wings and a flock of eight birds that looked like pigeons flying very high. On the way up the mountain side to Kaijongolo I also saw a small beetle with beautiful greenish blue wing cases, but I could not catch him. Several moths are fluttering about our camp.

We have decided to make Kaijongolo a base camp for the porters, so that they can recuperate and sleep, but we ourselves are about to set off for Freshfield Col.

Hour after hour we waited for the weather to clear, but in spite of the efforts of the witch doctor it grew worse, and at eleven o'clock Bamwanjala informed us that it was too late to reach Freshfield

that day. We have to stay here another day and night.

Ever since we arrived we have tried to start a proper fire, but with no luck. We get nothing but smoke; consequently our clothes are still wet through, and our blankets damp and horrible to touch. Our food is low, and we have not yet reached the most difficult part of the journey.

We have had a conference with the Bakonjo headmen. They realize the danger of staying here and have consented to start at daybreak tomorrow, no matter what the weather is like.

August 24th.

By 8:15 our tents were struck, and, leaving two men to keep the log fire burning, the rest of our party started off along a steep and narrow ledge from which we had a wonderful view of the Mobuku Valley, the rocky sides of which were streaked with long glacial grooves. After half an hour we came to another overhanging precipice with an excellent dry ledge underneath, far more suitable for a camp than Kaijongolo.

Growing all along this ledge and others like it, where rain could never reach, were numbers of

pretty white flowers (I believe called Araby), which looked very much like ordinary stock. The coniferous trees which, as the Duke says, "are covered with monstrous tumefactions of leprous growth," in other words, with moss and lichens, do not grow much above 12,000 feet. When we crossed a ridge at 12,900 feet the vegetation consisted of giant groundsel, lobelias, everlasting flowers, marsh grass, and herbaceous plants, but no conifers. Melting snow was about the roots of all the plants.

At 9:45 A. M. the sun temperature was 35°.

We had sent the porters ahead, but by ten o'clock we found them huddled around a dead groundsel tree which they had ignited, and which was pouring out volumes of smoke, but no heat. They had thrown their loads down in the slush. In spite of their misery they cheered up when they saw us, and soon were on their way. None but those who had been with the Duke had ever seen snow before. At first they carefully avoided touching it, but when it covered the ground and they were forced to walk through it with their bare feet they were surprised to find that it did them no harm.

Apparently the boots we supplied hurt their feet.

They had them strung around their necks, and were wearing their stockings on their arms.

At midday, after a most exhausting climb, we reached Freshfield Col camp. There were six inches of freshly fallen snow on the ground, and under the snow deep moss, and under the moss several feet of sticky black mud.

Every now and then one of the men would break through the snow and moss and sink to his waist in icy mire, from which it took the efforts of several to extricate him.

It was misery indescribable. The only shelter was a large boulder with everlasting flowers growing upon the top and one large groundsel tree in front.

We were on the summit of a pass and surrounded by jagged snow-capped peaks.

We managed to pitch the tent in the snow on the lee side of a boulder. The floor of the tent and all around it was icy slush. The porters were almost in a state of collapse. We started both Primus stoves, filled a kettle with snow, and served hot coffee. I fried chunks of pork and placed them in a saucepan with some pork and beans, and fried several slices of bread in the fat. This was our lunch,

which we ate standing ankle deep in freezing mud while our feet ached with the cold.

No wonder the natives here think that white men who try to climb Ruwenzori are mad!

It was out of the question for the porters to remain here; they would have died before morning, so we gave them more hot coffee and an extra shilling apiece and sent them back to Kaijongolo to sleep.

Each day they will come back up to this camp so as to be ready to move us as soon as we have climbed Mount Baker.

Dense fog descended at 2:35 P. M., but we set to work filling our knapsacks and fixing ropes to our ice axes. I had brought with me a good supply of red cloth, which I now tore up into bits about eighteen inches square. This done, we started out in the fog, leaving pieces of cloth on prominent rocks, and taking back bearings with a prismatic compass, so that we could find our way back even if the fog did not lift.

Oliver led the way; Goodrich and I followed.

I had to fling away my knapsack and go on without anything except the Explorers' Club flag and such instruments as I could stuff in my pockets.

The knapsack weighed only about twenty pounds, but I found that I was physically unable to carry it farther. Even without it, the climb was exhausting and dangerous.

I have often been asked to account for the fact that at high altitudes our porters were able to carry heavy loads apparently as easily as they carried them at lower altitudes, whereas we ourselves could scarcely carry ourselves and suffered from palpitations and shortness of breath. The only explanation I can give is that the porters did not know that at high altitudes they were supposed to feel its effects, and were therefore immune.

All around us on the surface of the snow spiders and the minute flies upon which I presume they fed were crawling. Small brownish gray moths were fluttering about everywhere. They kept alighting upon the snow, where they evidently found something to eat.

I collected some of the moths, and have since heard from the British Museum that they are an entirely new species and will be named after me! I'm dying to see my name in Latin.

We decided to return to camp and make another attempt the next day.

August 25th.

I have never had such a terrible night as last night. The temperature dropped to 29° and it felt much colder than it used to in Saskatchewan with the mercury below zero. Our tent is not only full of snow and slush, but is littered with dirty dishes, bits of food, splashes of milk, crusts of bread, empty cans, and all the rest of the accumulation that collects when three men eat, sleep, live, and cook in a tent measuring about ten feet long and six wide. It has been impossible to start a fire; so we have had to lend one of our precious Primus stoves to the cook and the boys to keep them from freezing.

Outside, the weather is arctic. An ice storm has been in progress all through the night; that peculiar kind of liquid ice that does so much damage to trees and telegraph wires in America. Fortunately, there is very little wind. If there were our position would be serious, for all our porters are down at Kaijongolo, and nothing would make them venture up here in such weather. Without them we can move neither forward nor backward: we are helpless.

All three of us are feeling the effects of the alti-

tude. We have to take deep breaths to relieve the feeling of suffocation. Goodrich and I both have headaches.

Just now a small animal like a mouse entered the tent and climbed upon my boot. While he was busily inspecting me Oliver caught him, and now he resides in an empty cigarette can with holes punched in the lid and a strong rubber band around it to prevent his escape. I believe he is the first mammal ever caught on Ruwenzori at this altitude.

To check this I consulted the Duke's book and found that they caught only two mammals. One was *Nyctinomus Aloysii Sabaudiae Festa*, and the other *Felis Pardus sub. spec. Ruwenzori Camerans*. This was very enlightening! My knowledge of Latin told me that one of them was a leopard. The British Museum identified my little animal as a *Crocidura*, or species of Shrew, that is found nowhere else in the world. He eventually died a glorious death in good spirits, and is the only specimen of his kind in America.

At 11:30 the sun tried to break through the gloom, and we hurriedly prepared to make another attempt on Mount Baker.



Bwamba Camp.



Camp at Freshfield, Col.

At midday Oliver, Ole, and I set out. The higher we climbed, the deeper became the snow. Many of the rocks that looked safe toppled over the instant we touched them and went crashing down into the valley.

Slabs of green moss came loose when we tried to climb the great boulders. After we had gone up a thousand feet Oliver discovered that the aneroid was lost. This was a great calamity, because the only other aneroid we have reads to 13,000 feet and we are already higher than that. For those who are not accustomed to an aneroid, perhaps I should explain that it is a portable barometer about the size and shape of a large watch. There was no use in mourning over it, so we kept on until an unscalable vertical precipice compelled us to retrace our steps. Oliver gave a cry: he had found the lost aneroid, and by a marvelous stroke of luck it had fallen face upward in deep snow, narrowly missing a large rock! The only effect of the fall was that instead of registering the actual fall from Oliver's pocket to the ground, say, three feet, the sensitive instrument registered a fall of six thousand feet. No doubt it felt as if it had fallen six thousand feet and registered its feelings accordingly. It quickly

recovered from its shock, however, and by the time we reached camp again it was registering accurately.

We now tried another route, and with the weather improving rapidly we climbed up to the foot of a glacier at 14,650 feet. The glacier was so dazzlingly white that we fixed on our goggles before we started roping up. Our rope was a hundred-foot standard Alpine Club rope of the finest quality. Oliver led the way, I was in the middle, and Ole brought up the rear. With our ice axes tied to our right wrists we started up the glacier. At the very edge was a small crevasse, but we were unable to see any other crevasses on account of the covering of deep, freshly fallen snow.

The slope of a hill always seems steeper than it actually is; this is especially the case with glaciers. This one seemed to be as straight as the side of a house, but it was probably sloping at an angle of no more than seventy degrees.

For the first hundred feet we had to cut steps in the side, but after that the snow was so deep that we were able to climb without fear of slipping. Oliver would go up thirty-three feet, then I would join him, then Ole would join me.

Cutting steps at an altitude of 15,000 feet and climbing at the same time is most exhausting; and the worst of it was that none of us had the proper kind of warm waterproof gloves. Our hands and feet gave us great pain. The snow on the glacier was melting, and icy water streamed down into our boots.

Just as we were approaching the top edge of the glacier I became faint. Thrusting my ice ax deep into the snow, I fell forward on my face and hung suspended on the ax until Ole climbed up and gave me a long drink of hot Bovril from his thermos flask.

Then we turned and faced camp once more.

I'll never forget the misery of that descent. It seemed as if we were walking down the side of the Woolworth Building, but somehow or other we managed to climb down and within an hour we were back in camp.

Our food supply was diminishing so rapidly that it seemed essential to move the main camp and get the porters up from Kaijongolo and over the Freshfield Pass. At the same time Baker was still beckoning to us. We decided to kill two birds with one stone; that is, to move camp and try Baker for the

third and last time. Word was therefore sent down to the porters, and at nine o'clock on August 26th twenty-four men arrived. The remainder were descending the mountain to Ibanda, where they were to get fresh supplies and ascend the Bujuku Valley to meet us.

Ole and Oliver set out for the summit, and I started off with the men to climb over the pass into the Belgian Congo.

The temperature was 25° and it was snowing hard when we left Freshfield.

At midday, when we arrived at the saddle overlooking the Belgian Congo, we found a lot of empty asparagus cans, left there by His Royal Highness in 1906. Bamwanjala told me that the Duke stayed here for six days and that they had a narrow escape from an avalanche.

The descent into the valley was very steep. Had it not been for the network of fallen logs that covered the side of the precipice, it would have been impossible to go down without a parachute. As it was, we kept slipping and clinging onto trees, some of which held our weight, while others, rotten with age, broke off and sent us crashing down into the mud and slush until another log stopped our

descent and at the same time took the skin off our shins.

At three o'clock in the afternoon we came out into a little open space overlooking a charming lake, and I saw more badly rusted asparagus cans, relics of some royal repast. Our camp site was about ninety feet lower on the edge of the lake. The ground was covered with large tufts of grass, honey-combed with tunnels made by marmots, whose droppings were everywhere, reminding me vividly of the lemmings in Lapland. We saw none of the animals themselves, but at night there was a lot of squeaking which might have come from them.

We were now either actually in the Belgian Congo or on the border, and the temperature was considerably warmer than at Freshfield. The vegetation was luxuriant, and there were plenty of birds of brilliant plumage. All that we saw had the long curved beak of honey eaters. They were quite tame, and we often saw them perched upon the side of a lobelia, thrusting their beaks into the blue flowers.

When I first saw this lake I asked Bamwanjala whether there were any fish in it, and he said No, but when I looked through my field glasses I distinctly saw fish rising for flies.

Then I saw a large brown duck swim slowly across the lake, and on her back she was carrying a baby. By the time we had pitched our tents beside the lake the duck had disappeared, but just before sunset, when the noise of the porters had diminished, she came out again and gave the baby a few swimming lessons. On the far side of the lake I saw four pairs of ducks, all with large families. The color of the beak was a light bluish gray with a circle of white feathers at the base. The legs were orange; neck and throat almost gray; white bands on the wings with possibly some iridescent feathers above the white bands.

Ole and Oliver were still absent, but the weather had been steadily improving since morning and the prospects of their having climbed Mount Baker looked good.

I bandaged broken toes, washed cuts on legs, dressed old wounds, and administered medicine until nearly six. Darkness fell and the moon rose, but there was still no sign of Ole and Oliver. I was beginning to feel anxious when I heard a faint "Cooee" and I knew that they had reached the ridge above the lake, and that they were looking down upon our camp, six hundred feet below.

Their only light was a pocket flashlight, which I could see distinctly, as it jerkily descended the mountain side. I sent men with lanterns to meet them and began to prepare a banquet for them.

At seven-thirty they arrived in camp. I poured out two large cups of hot tea, fifty per cent. brandy, and listened while they told of their success in climbing Edward Peak on Mount Baker.

Twenty-two years before our little expedition followed in his footsteps the Duke of the Abruzzi had left his visiting card on the top of Baker. It was still there in a perfect state of preservation, resting inside an old tin can. After they had photographed it Ole and Oliver wrapped it carefully in silver paper and placed it in a screw-topped glass jar together with the records of our expedition, and, as an afterthought, five and one-half tablets of Meta solid fuel and a Kodak autographic pencil were also placed in the jar. The empty tin can which for so many years had sheltered the Duke's visiting card was now made the receptacle for a cake of Palmolive soap. A cairn of stones was then built over the records and a large piece of red bunting placed over it and weighted down with a heavy rock.

V

ON AUGUST 27th we commenced the final ascent to the Scott Elliot Pass.

There was no trail for the porters to follow, so we led the way with Bamwanjala, cutting down giant weeds, walking across the fallen stems of mammoth birdseed, scrambling over enormous boulders. At midday we came to the second of the Twin Lakes and found the temperature of the water only 41° F.

Our path led up the Butago Valley which runs around the western side of Mount Baker. Glaciers hung from the precipices on either side, and at the base of the King Edward Glacier there was a great avalanche. The snow had congealed into ice, and it was full of stones and rocks of all sizes. Up and up we toiled, followed by a trail of porters, limping and stumbling on the sharp rocks, but gamely carrying on with their sixty-pound loads still on their heads. Gradually the valley narrowed until we were walking between two vertical walls of rock,



A lovely August morning at Kitandara.

from two to three thousand feet high and about a quarter of a mile apart. My heart was pounding like a sledge hammer, and I was not sorry when the porters announced that they could go no farther that day.

Ahead of us was a ridge of rocky peaks like great teeth; our route led over the top.

It was just two o'clock before we found a camp site. It was high up on the side of the precipice and consisted of a ledge only four feet wide, partially sheltered by the overhang of the precipice. This, at least, insured our safety from avalanches. The ledge was named Kitandara. We stayed on it two days.

The first thing we did was to start the Primus stoves and cook coffee for the whole party. Billy and Buster had long ago been devoured and our supply of food was low. Between us and comparative safety was that appalling range of saw-toothed peaks. Over them lay the Bujuku Valley. Our relieving porters were presumably waiting there with fresh supplies and firewood. But the question in all our minds was: Are they really there?

What a place for a camp! Only three feet of the ledge was dry. The rest was covered with snow

into which water continually dropped from the precipice. Along the edge were giant pieces of groundsel, the leaves covered with snow. Across the valley lay the Elena Glacier, from the end of which from time to time masses of ice crashed with a thunderous roar.

Our porters scattered along the ledge and commenced little individual fires, using dead groundsel leaves for fuel.

There was no room to pitch a tent, nor even to place an ordinary camp bed. The maximum temperature for the day had been 46 degrees, and now, with the thermometer below freezing, we found ourselves stranded without tent or bed or fire. By the dim light of a hurricane lamp we set to work with our ice axes to excavate the ledge. We worked until we had room to erect our camp beds, half in shelter and half in snow. Then we put on all our clothes, piled into our damp sleeping bags, and tried to sleep.

In the middle of the night a heavy snowstorm commenced. Every half hour or so a snow slide fell from the precipice above us, missing our beds by a few inches and scattering snow all over us.

In the morning it was still snowing hard. Within

a few inches of our beds there was a bank of snow three feet high, like a rampart. Our kitchen utensils, Primus stoves, chop boxes, and cameras were all buried, and there was not a sound from the porters, who were lying huddled together under heaps of blankets and rags. Great white flakes of wet snow were falling so thickly that the other side of the valley was invisible, and I chuckled to myself as I remembered the date and the locality. A lovely August morning on the equator in Central Africa!

As soon as he noticed we were moving about Bamwanjala approached, looking like a mute at a funeral, and started talking mournfully to Oliver. Knowing that I could not understand a word he was saying, the famous old guide turned to me and pointed to his stomach, then to his feet, then to the snow, then waved his hand toward the porters and shook his head. I knew that he was saying that the porters had finished their food, that they had sore feet, and that they refused to proceed until the snowstorm stopped.

In vain we explained that the storm might continue for days or weeks, and that the longer the porters remained the weaker they would become,

until finally they would starve to death. Nothing could make them budge an inch. The witch doctor started blowing his flute, but the snow came down harder than ever. All day it continued, and when darkness fell we were still on the ledge, with less than a day's rations, and not a cigarette among us.

The witch doctor put in another spell of flute playing, while we stormed at Bamwanjala and offered the porters double wages if only they would pull themselves together and start in the morning. Several of the men collapsed and were of no further use. I began to wonder if we should all starve to death, and found myself hoping that when our bodies were discovered they would be badly frost-bitten, so that we should at least have had the satisfaction of freezing to death in Central Equatorial Africa.

When morning came our position was dangerous. The outlook from our ledge suggested midwinter in New England.

Instead of Bamwanjala visiting us, Oliver visited him and let him know that if the men did not move force would be applied to make them. When he came back he advised us to give as much food as we could to the porters. I promised the men double

wages until they reached the base of the mountain, no matter how long it took, provided they started at once and succeeded in crossing the Scott Elliot Pass that day.

The cunning witch doctor, as soon as he realized that the safari was really going on, began to bargain with the porters for extra pay, and finally made them all agree to pay him 20 per cent. of their wages, in return for which he guaranteed to control the weather sufficiently to enable the expedition to cross the pass.

At two in the afternoon the men started off on the final climb from Kitandara, 13,680 feet, to the Scott Elliot Pass, 15,000 feet.

My camera man and I took our position at the end of the caravan with the witch doctor, who played on his flute unceasingly.

The freshly fallen snow was covered with small spiders and long-legged flies. At four-thirty, at an elevation of 14,500, we were suddenly enveloped in a cloud, and when the cloud rolled by, half an hour later, five of the porters, including the man carrying my bed, had lost their bearings and had climbed up the precipice, where they were backed against an unscalable cliff.

At five-thirty we arrived at the summit of the Pass.

Here we rested for a few minutes while I left some records in a cairn and collected some specimens of the worms which were living in the moss. A worm is about the only animal I can think of that could get any enjoyment out of living here.

We had reached the turning point at last after two weeks of steady climbing. The altitude was 15,000 feet.

All we thought of now was getting back to Fort Portal without losing any of our men. Our food was practically used up. Below us, more than two thousand feet down the side of the mountain, was the Bujuku Valley and the camp where we proposed to sleep, and where our relieving porters had been instructed to wait for us. Night was rapidly falling, and it was evident that the descent would have to be made in the dark.

On the down grade the weak condition of our porters became evident. They stumbled and fell continually. One of them began to cry, and this started them all blubbering like babies, but they still struggled along with their heavy loads on their heads. I went ahead as fast as I could, hoping to see

a light that would guide me to the camp. Four hours later I reached the Bujuku swamp.

Ole and Oliver remained behind with the porters to keep them moving and to help them negotiate the more difficult places. Time after time they sank down in the deep snow and slush and had to be goaded on by kicks and curses. After a while it became obvious that a choice had to be made between the loads and the men. So the loads were flung down the mountain side where they could be picked up later if they were not lost.

In the meantime, I myself was floundering through the swamp up to my waist trying to locate the camp, and when I eventually reached it it was deserted!

Our relief porters had failed us. There were a few sticks of wood with which I made a fire. Then I hoisted a lantern on a tall pole and climbed onto a rock with my flashlight and became a living lighthouse for the guidance of the porters and my companions.

The snow was falling so thickly that often I could not see fifty yards ahead. A terrible thunderstorm came, with vivid flashes of lightning and heavier snow than ever.

At ten o'clock Oliver, Ole, and the porters arrived. They presented a most amazing sight, pure white from head to waist, covered thickly with snow; and black as ink from the waist downward, covered with thick black mud.

The temperature was 26° and we had no beds, no blankets, no cooking utensils, no knives, no forks, and no food.

The firewood saved us. It sent forth a smoke that made life miserable, but it did burn. We lay on the ground beside it, utterly exhausted, and alternately slept and froze.

On the morning of August 29th we found that Bamwanjala and five porters were missing. The loss of the headman was serious, because the porters showed signs of refusing to obey Oliver when he ordered them to go and find their lost companions and recover some of the lost loads so that we could get the Primus stoves working and make some hot tea.

The occasions when a white man is justified in chastising a native are few, but when Oliver licked those two husky Bakonjos and sent them flying into the swamp after their lost friends I thought this action most timely.



Snow on Mount Baker—an excellent place for winter sports.



George Oliver, on Mount Baker, with the visiting card of the Duke of the Abruzzi, placed there twenty-two years earlier.

We were all too exhausted to move on down the mountain. We decided to rest in camp for the day and continue the descent in the morning, no matter whether the relieving porters came or not. The snowstorm continued. We had at least discovered that August is Ruwenzori's winter time.

On the morning of August 30th I was awakened at six o'clock by a tremendous noise and saw the whole face of a glacier break away and come thundering down the side of the mountain. Although at the start the lumps of ice were as big as houses, by the time they reached the valley they were ground to powder as fine as salt. They lay heaped up in an enormous pile within two hundred yards of our camp.

By eleven o'clock one of the missing men arrived with his load. At four in the afternoon the rest of them turned up.

We had now given up hope of relief. At ten o'clock, after sorting our baggage and discarding several loads, we started down the Bujuku Valley.

The route was through a swamp, of course, but a peculiar kind of swamp, full of large round tufts of grass like wobbly cushions three feet high.

By jumping from one tuft to another it was

possible to keep out of the actual swamp, but, unfortunately, about every five minutes we would lose our balance and splash into the thick black ooze.

The following is copied directly from my diary:

"It is now ten minutes to one and we have been in this damnable swamp ever since we left camp this morning. Leaping from one tuft of reeds to another, balancing, slipping, tottering, staggering, plunging into mud and slime three feet deep, panting and gasping for air and cursing the day I ever heard of Ruwenzori."

But the worst was over. Within a mile of camp we met our ten relieving porters. Food was plentiful once more, and finally, on September the first, we reached Ibanda and were greeted on all sides by the shouts of the natives whose husbands were returning, wealthy beyond their wildest dreams. "*We bale ! We bale !*" (Well done, well done!) was heard on all sides, and when we pitched our tent once more at our starting point, Ibanda, the chief himself was there to greet us, dressed in a white cotton nightshirt and a tuxedo.

"Have you any message for the people of America and Britain?" I asked the Kimbugwe, as he is

called, whereupon he posed before the movie camera and made the following speech:

“Tell the people of America and England that the elephants are eating up all our crops, and our people are starving. The safaris come here and ask me to feed them. How can I feed them when the elephants eat everything. Come and kill the elephants, or we shall starve.”

APPENDIX

POPULAR PRONUNCIATION OF NAMES

Abruzzi	Ab-roo'-tsy	Ewasa Nyiro	E-war'-sar Nee-eer'-o
Aden	A'-den		
Askari	A-skä'-ry	Gnu	New
Astriba	As-tree'-ber		
Bakonjo	Ba-kon'-jo	Hadendoa	Har-den-do'- a (long o)
Bamwanjala	Bu m' - wun - jar'-lar	Hartebeeste	Heart-beast
Boma	Bom'-a (long o)	Hima	Hee'-mar
		Hyrax	Hi-'rax (long i)
Bujuku	Boo-joo'-koo		
Burru	Boo'-roo	Ibanda	Ee-ban'-da
Busia	Bu-sire'	Impalla	Im-par'-la
Bwamba	B w u m' - b a (short u)	Jinja	Gin'-ger
Bwana	Bwar'-na	Kabaka	Ka-bär-'ka
Chowha	Chow'-ar	Kaijongolo	Ky-jon'-go-lo
Congo	Kon'-go	Kakamega	Ka-ka-may'- gar
Congoni	Kon-go'-ny	Kampala	Kam-par'-lor
Duiker	Dik'-er (long i)	Kanzu	Kärn'-zoo
		Kapsabet	Kapp'-sa-bet
Ebaralibi	Eb-ar-a-leeb'- y	Kasungan- yanza	K a - s o o n' - garn-i-an'- za
Eland	E'-lund (long e)	Kenya	Keen'-ia
Elementeita	El-e-men-ti'- ta (long i)	Kichuchu	Kee-choo- choo
Entebbe	En-tebb'-y (like ebb)	Kikuyu	Kee-koo'-you
		Kilimanjaro	Kil'-ee-mun- ja'-ro

Kilindini	Kil-in-dee'-ny	Nakuru	Na-koo'-roo
Kimbugwe	Kim-boog'- wy	Ndundu	Doon'-doo
Kitandara	Keet-an-dä'- ra	Nyanza	Ni-an'-za
		Nyinabitaba	Nee-in'-na- bit-ar'-ba
Kopje	Kop'-py	Ruimi	Roo-ee'-my
Limuru	Lee-moo'-roo		
Londiani	Lund-y-ar'- ny	Sabawali	Sar-bar-war'- ly
Luboni	Loo-bon'-y (long o)	Safari	Sa-far'-y
		Samaki	Sa-mar'-ky
		Saronia	Sar-row-ne'- ar
Makindu	Ma-kin'-doo		
Masai	Mars'-eye	Shata	Shar'-tar
Mazeras	Ma-zee'-rus	Suakin	Soo-ark'-in
Meru	Meer'-oo	Sudan	Soo-dan'
Mihunga	Mee-hoon'-ga	Suez	Soo'-is
Mobuku	Mo-boo'-koo	Swahili	Swar-hee'-ly
Mohoma	Ma-hom'-ar (long o)	Tanganyika	T a n - g a n - eek'-a
Mombasa	Mom-bass'-a		
Mubende	Moo-ben'-dy	Toro	To'-ro (like door)
Mujasi	Moo-jar'-sy	Tsavo	Sar'-vo
Nairobi	N i - r o' - b y (long i)	Uganda	Yew-gand'-er
Naivasha	N i - v a s h' - a (long i)	Warwick	Wäh-rick
		We bale	Way-barl'-ay]
Nakitawa	Na-keet-ar'- war	Zanzibar	Zans-i-bar'

OBSERVATIONS TAKEN FOR DETERMINING ALTITUDES

Observations were taken of air temperature, barometric pressure, and the boiling point of water.

NAME OF CAMP	TEMPERATURE OF THE AIR	BAROMETER	BOILING POINT(F)		ELEVATION
IBANDA	79° F.				4,280
Sept. 1, 1928	at 3:35 P. M.	Out of order	203.8	Aneroid	4,739
MIHUNGA	65° F.			Calculation B. P.	6,210
Sept. 1, 1928	at 12:15 P. M.	Out of order	200.7	Aneroid	6,538
NYINABITABA	52° F.			Calculation B. P.	8,580
Aug. 31, 1928	at 8:50 A. M.	21.93	196.7	Aneroid	8,827
KIGO	44° F.			Calculation B. P.	11,950
Aug. 30, 1928	at 5:45 P. M.	19.20	192.3	Aneroid	11,343
BUJUKU LAKE	38° F.			Calculation B. P.	13,100
Aug. 29, 1928	at 10:15 A. M.	18.32	189.6	Aneroid	12,880
KITANDARA	44° F.			Calculation B. P.	13,610
Aug. 27, 1928	at 4 P. M.	17.98	188.2	Aneroid	13,680
				Calculation B. P.	

TWIN LAKES Aug. 26, 1928	41.5° F. at 5:45 P. M.	Out of order	189.3	Aneroid Calculation B. P.	Out of order
FRESHFIELD COL	35° F. at 5:40 P. M.	17.77	187.6	Aneroid Calculation B. P.	13,048
Aug. 24, 1928	39° F. at 4:15 P. M.	18.89	190.6	Aneroid Calculation B. P.	13,930
KAIJONGOLO	47° F. at 5:15 P. M.	19.55	192.2	Aneroid Calculation B. P.	14,016
Aug. 22, 1928	55° F. at 4 P. M.	20.78	195.0	Aneroid Calculation B. P.	12,320
BWAMBA	55.5° F. at 3 P. M.	21.83	—	Aneroid Calculation B. P.	12,316
Aug. 21, 1928	76.8° F. at 2:50 P. M.	23.88	—	Aneroid Calculation B. P.	11,450
KICHUCHU	65.8° F. at 8:30 A. M.	25.66	—	Aneroid Calculation B. P.	11,404
Aug. 20, 1928				Aneroid Calculation B. P.	9,880
NYINABITABA				Aneroid Calculation B. P.	9,787
Aug. 19, 1928				Aneroid Calculation B. P.	8,580
MIHUNGA				Aneroid Calculation B. P.	8,827
Aug. 18, 1928				Aneroid Calculation B. P.	6,210
IBANDA				Aneroid Calculation B. P.	6,538
Aug. 18, 1928				Aneroid Calculation B. P.	4,280
				Aneroid Calculation B. P.	4,739

TABLE OF MAXIMUM AND MINIMUM TEMPERATURES, ALSO TEMPERATURE
OF WATER IN STREAMS AND LAKES

CLIMBING RUWENZORI

CAMP	DATE	MAXIMUM	MINIMUM	TEMPERATURE OF WATER IN RIVERS, ETC.
FORT PORTAL	Aug. 13	74° F.	58° F.	
FORT PORTAL	14	82°	57°	River Hima 64° F.
KASUNGANYANZA	15	98°	58°	River Mobuku 59°
IBANDA	16	80°	55°	
IBANDA	17	110° (sun)	58°	River Luboni 58°
MIHUNGA	18	110° (sun)	55°	River Chowha 56°
NYINABITABA	19	—	45°	River Mahoma 54°

KICHUCHU	20	—	40°	River Mobuku 46°
BWAMBA	21	—	36°	River Mobuku 43°
				Bwamba Falls 40°
KAIJONGOLO	22	48° (sun)	32°	Water in streams 32°
KAIJONGOLO	23	56° (sun)	32°	Streams frozen
FRESHFIELD COL	24	40° (sun)	32°	Lower Lake 44°
FRESHFIELD COL	25	45° (sun)	25°	Upper Lake 41°
TWIN LAKES	26	45° (sun)	30°	
				Bujuku Lake 42°
KITANDARA	27	46° (sun)	31°	
BUJUKU LAKE	28	54° (sun)	26°	
BUJUKU LAKE	29	58° (sun)	27°	
KIGO	30	65°	27°	Bujuku River 41°

TABLE OF MAXIMUM AND MINIMUM TEMPERATURES TAKEN AT SARONIA CAMP, TANGANYIKA

DATE	MAXIMUM	MINIMUM
July 25, 1928	100°F.	50°F.
26	98°	56°
27	100°	56°
28	90°	56°
29	103°	52°
30	98°	52°
31	94°	52°
Aug. 1	98°	52°
2	100°	50°

FOOD FOR THREE MEN FOR ONE MONTH ON RUWENZORI

No. 1 CHOP BOX.*

- 9 tins mulligatawny soup
- 9 " Heinz green pea soup.
- 6 tins Heinz tomato soup
- 8 " Heinz beans large.
- 8 " " " small.
- 1 tin mustard.
- 1 " Cerebos salt.
- 1 pepper castor full.
- 2 tins baking powder.
- 6 bottles Bovril.

No. 2 CHOP BOX.

- 4 tins tea.
- 4 " Quaker Oats.
- 3 " Grape Nuts.
- 2 " digestive biscuits.
- 1 " hops.
- 3 " jam.
- 3 " marmalade.
- 12 " sardines.
- 4 " Gold Flake cigarettes.
- 2 pkts. matches.

**A chop box is a wooden box about two feet long, one foot wide, and one foot deep. It is fitted with a wooden lid on metal hinges and a padlock.*

No. 3 CHOP BOX.

- 12 tins peas.
- 12 " Heinz spaghetti.
- 12 " Maconachie rations.

No. 4 CHOP BOX.

- 12 tins peaches in syrup.
- 12 " pears " "
- 1 " curry powder.
- 3 " lard.
- 1 pkg. cooking salt.

No. 5 CHOP BOX.

- 3 tins apple rings.
- 6 " herrings.
- 12 " bully beef.
- 2 pkts. Sunlight soap.
- 2 " Bromo (toilet paper).
- 1 pkts. candles.
- 1 " rice.
- 3 " dubbin (grease for boots).
- 1 pkg. flour.

No. 6 CHOP BOX.

- 2 pieces bacon.
- 1 tin Dutch cheese.
- 1 bot. whisky.
- 1 " brandy.
- 4 " coffee essence.
- 2 " Heinz tomato sauce.
- 2 bot. Worcester sauce.
- 6 bandages.

1 bot. iodine.

2 " quinine.

1 roll plaster.

1 tin permanganate of potash.

No. 7 CHOP BOX.

1 tin sugar.

1 " flour.

No. 8. CHOP BOX.

Load potatoes and onions.

No. 9. CHOP BOX.

Case Ideal milk.

No. 10 CHOP BOX.

2 Primus stoves.

1 pkg. Meta fuel.

1 screwdriver.

1 file.

6 doz. 1" screws.

1 bot. methylated spirit.

2 balls string.

1 funnel.

4 lamp wicks.

No. 11 CHOP BOX.

1 teapot.

1 coffeepot.

1 milk jug.

2 cups and saucers.

3 soup plates.

3 meat plates.

3 pudding plates.

3 enamel mugs.

2 meat dishes.

- | | |
|--|---|
| 3 table knives. | 2 cooking pots. |
| 2 dessert knives. | 1 oven. |
| 3 table forks. | No. 13. |
| 2 dessert forks. | 1 tent 9 x 7, fly, veranda,
etc. |
| 3 soup spoons. | 2 mosquito nets for boys. |
| 3 pudding spoons. | 1 porters' tent fly. |
| 1 corkscrew. | 1 ax. |
| 1 cook's chopper, knife,
fork, spoon. | 4 pangas. |
| 1 grid. | 1 Whymper tent. |
| 1 frying pan. | 3 ice axes and 100 feet of
best Alpine rope. |
| 1 piece Americani. | 4 lamps and 1 globe. |
| 2 rice plates. | 1 tin A. oil. |
| No. 12 SACK. | 1 " C. " |
| 1 kettle. | 1 " grease. |
| 1 washbowl. | |

LIST OF CLOTHING PURCHASED FOR THE PORTERS

- 100 blankets
- 20 pairs of trousers
- 16 pairs of leather boots.
- 16 pairs of canvas shoes.
- 24 pairs of long woolen stockings.
- 20 woolen sweaters.
- 20 fleece-lined vests.
- 3 waterproofs for our personal boys.
- 6 woolen Balaclava helmets. (Many of the men already
had their own.)
- 6 pairs of woolen puttees.
- 6 yards of cheesecloth for filtering water.

LIST OF FOOD PURCHASED FOR THE PORTERS

- 120 lbs. of rice.
 1200 lbs. of millet flour.
 100 lbs. of salt crystals.
 10 lbs. of Epsom salts. (This was not enough.)
 60 lbs. of white flour.
 1 live sheep.
 1 live goat.

SWAHILI VOCABULARY

The following is a vocabulary which I made up with the aid of Captain E. D. Tongue, the District Commissioner at Kampala, Uganda. We found it invaluable. Most of the words are in Swahili, but there are probably several words specially used in Uganda and not so much in Kenya.

All right	<i>Kali</i>	Buffalo	<i>Embojo</i>
Another	<i>Ingini</i>	Butter	<i>Siagi</i>
Are there fish in this river?	<i>Iko samaki mtoni hi?</i>	Buy	<i>Nunua</i>
Are you sick?	<i>Wewe mgonj- wa?</i>	Call me	<i>Amka mimi</i>
		Can (able)	<i>Kuweza</i>
		Cannot (un- able)	<i>Hapana wezi</i>
Baby	<i>Mtoto</i>	Cartridge	<i>Risasi</i>
Bad	<i>Baya</i>	Cat	<i>Kapa</i>
Baggage	<i>Sanduku</i>	Chair	<i>Kiti</i>
Bed	<i>Kitanda</i>	Chicken	<i>Kuku</i>
Bird	<i>Ndege</i>	Clean	<i>Safi</i>
Boat	<i>Mbatu</i>	Close	<i>Funga</i>
Boiling	<i>Chemuka</i>	Clothes	<i>Ngoye nguo</i>
Boy	<i>Kijanamtu</i>	Clouds	<i>Mbire</i>
Bread	<i>Mgati</i>	Coffee	<i>Kawa</i>
Bring	<i>Lete</i>	Cold	<i>Baride</i>

Come here	<i>Njo</i>	Get out of	<i>Toka or vow</i>
Cook (the man)	<i>Mpishi</i>	the way	
Cook (the verb)	<i>Pika</i>	Give that to me	<i>Nipi</i>
Cut	<i>Kata</i>	Glass	<i>Glassi</i>
		Good	<i>Mzuri</i>
		Go quickly	<i>Kwenda pesi</i>
		Go there	<i>Nenda</i>
Dead	<i>Amakufa</i>	Go to —	<i>Nenda —</i>
Dirty	<i>Mchafu</i>	tell him I	<i>mombiya</i>
Do	<i>Fanya</i>	want —	<i>nataka—</i>
Doctor	<i>Doctari</i>	then come	<i>halafu rudi</i>
Dog	<i>Mbwa</i>	back to me.	<i>hafa.</i>
Don't	<i>Hapana</i>	Greeting	<i>Jambo</i>
Don't do that	<i>Hapana fan-ya (wacha)</i>	when you meet a native	
Don't forget	<i>Usi sahau</i>		
Door	<i>Malango</i>	Gun	<i>Bunduk</i>
Do you understand?	<i>Umesikya?</i>		
Do you want medicine?	<i>Utaka dawa?</i>	Hand	<i>Mkono</i>
Dry	<i>Kalu</i>	Have you any?	<i>Eko?</i>
		He	<i>Yeye</i>
Early	<i>Subui sana</i>	Head	<i>Kitua</i>
Elephant	<i>Tembo (njoyu)</i>	Heavy	<i>Zito</i>
Evening	<i>Usiku</i>	Help him	<i>Saidiya huyu</i>
		Help me	<i>Saidiya mimi</i>
		Here	<i>Hapa</i>
Face	<i>Uso or macho</i>	Hers	<i>Yake</i>
Fetch the doctor	<i>Lete doctari</i>	High	<i>Mrefu</i>
Fish	<i>Samaki</i>	Hippopotamus	<i>Kiboko</i>
Food	<i>Chakala</i>	His	<i>Yake</i>
Foot	<i>Mgu</i>	Hot	<i>Moto</i>
Fork	<i>Uma</i>	House	<i>Nyumba</i>
Frying pan	<i>Flipan</i>	How?	<i>Namna gani?</i>

How far is	<i>Sawa ngapi</i>	Man	<i>Mtu</i>
— from	<i>kufika kwa</i>	Many	<i>Mingi</i>
here?	—?	Meat	<i>Nyama</i>
How much?	<i>Ngapi?</i>	Medicine	<i>Dawa</i>
Hyena	<i>Mpisi</i>	Men	<i>Mtu</i>
		Midday	<i>Mchana</i>
I	<i>Mimi</i>	Milk	<i>Mziwas</i>
I am not	<i>Si mekopa</i>	Mine	<i>Yangu</i>
afraid		Monkey	<i>Mkima</i>
I am sick	<i>Mimi ngonj-</i>	Moon	<i>Muezi</i>
	<i>wa</i>	Morning	<i>Sabui</i>
Ice	<i>Barafu</i>	Mosquito net	<i>Kitimda</i>
I don't un-	<i>Sima sikya</i>	Mountain	<i>Kilima</i>
derstand		Mouth	<i>Mdomo</i>
In	<i>Endani</i>	Much	<i>Mingi</i>
Inside	<i>Ndani</i>	No	<i>Hapana</i>
Is it alive?	<i>Bada kufa?</i>		
Is it dead?	<i>Amakufa?</i>	Oil	<i>Mafuta</i>
Is there any?	<i>Eko?</i>	On	<i>Ku</i>
		Open	<i>Fungua</i>
Kettle	<i>Bilika</i>	Ours	<i>Yetu</i>
Kill	<i>Ku'ua</i>	Outside	<i>Nje</i>
Knife	<i>Kisu</i>	Over	<i>Ju ya</i>
Lamp	<i>Taa</i>	People	<i>Watu</i>
Large	<i>Kubwa</i>	Plate	<i>Sahani</i>
Leopard	<i>Chui</i>	Poisonous	<i>Omusa gwa</i>
Let go	<i>Wacha</i>		(snake)
Liar, lie	<i>Wongo</i>	Praise, a	<i>Asenti sana</i>
Lift	<i>Pelaka ju</i>	word of	<i>kazi yako</i>
Light the	<i>Leza taa</i>		<i>mzuri sana</i>
lamp		The oppo-	<i>Wewe pum-</i>
Lion	<i>Simba</i>	site	<i>bafu ka-</i>
Long	<i>Mrefu</i>		<i>bisa.</i>
Low	<i>Fupi</i>	Puttees	<i>Pattrisi</i>

Rain	<i>Mbua</i>	Tell	<i>Mombiya</i>
Rhinoceros	<i>Kifaru (nku-lu)</i>	That	<i>Huyo</i>
Rice	<i>Mckeke</i>	Theirs	<i>Yago</i>
River	<i>Mto</i>	There	<i>Huka</i>
Roll my put-tees	<i>Tanganeza pattrisi yangu</i>	These	<i>Hizi</i>
		They	<i>Yas</i>
		This	<i>Hi</i>
		Those	<i>Zili</i>
		Throw away	<i>Tupa</i>
Saucepan	<i>Sufuria</i>	To	<i>Kwa</i>
Sell	<i>Wza</i>	To clean up	<i>Suffisha</i>
She	<i>Yeye</i>	or wash	
Shirt	<i>Sati</i>	To-day	<i>Leo</i>
Short	<i>Mfupe</i>	To get ready	<i>Tengeneza</i>
Shut up!	<i>Kilele</i>	anything	
Sky	<i>Ju</i>	To-morrow	<i>Kesho</i>
Sleep	<i>Kulala</i>	Toothache	<i>Mgonjwa ya</i>
Small	<i>Kidogo</i>		<i>meno</i>
Snake	<i>Omsoto</i>	To pass or	<i>Pita</i>
Soap	<i>Sabuni</i>	cross	
Socks	<i>Socsi</i>	Tree	<i>Muti</i>
Speak slowly	<i>Sayma poli poli</i>	Trousers	<i>Mpale</i>
Speak truly	<i>Sema kweli</i>	Under	<i>Chiniya</i>
Spear	<i>Cfumu</i>	Vegetables	<i>Viasi</i>
Spoon	<i>Kijiko</i>	Very	<i>Sana</i>
Sugar	<i>Sukali</i>	Very dear	<i>Gali sana</i>
Sun	<i>Jua</i>	Village	<i>Kialo</i>
Table	<i>Mesa</i>	Wake up	<i>Amka</i>
Take care	<i>Angalia</i>	Wash	<i>Yozo</i>
Take hold	<i>Komata</i>	W a s h m y	<i>Yozo ngua</i>
Take this letter to—	<i>Peleka valua hi</i>	clothes	<i>yangu</i>
Tea	<i>Chai</i>	Water	<i>Maji</i>
Teeth	<i>Meno</i>	We	<i>Sisi</i>
		Wet	<i>Mbichi</i>

What are you afraid of?	<i>Kopa nini?</i>	Where?	<i>Wapi?</i>
What are you doing?	<i>Fanya nini?</i>	Where are you going?	<i>Ume gueda wapi?</i>
What did he say?	<i>Asema nini?</i>	Where is it?	<i>Wapi?</i> (E. g. Whisky <i>wapi?</i>)
What is the name for that?	<i>Jina laki?</i>	Why?	<i>Kwa nini?</i>
What's this?	<i>Nini pi?</i>	Will you sell that?	<i>Uta uza hi?</i>
When (will he come?)	<i>Ana kujo lini (lini, when)</i>	Wind	<i>Upepo</i>
When (I do this, you do that)	<i>Kama</i>	Woman	<i>Mke</i>
Whence are you com- ing?	<i>Ume toka?</i>	Yes	<i>Ndio</i>
		Yesterday	<i>Jana</i>
		You	<i>Wewe</i>
		Yours	<i>Yako</i>
		Zebra	<i>Punda milia</i>

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